



PUBLIC COPY

AGENDA

Meeting of the Westport Rating District Joint Committee

Thursday 3 March 2022
commencing at 1.00pm

To be held via Zoom due to Covid-19 restrictions
and
Live streamed via the West Coast Regional Council's Facebook Page:
<https://www.facebook.com/WestCoastRegionalCouncil>

Membership of the Westport Rating District Joint Committee:

Chairperson: Hugh McMillan

Members:

Allan Birchfield	Chair, West Coast Regional Council
Jamie Cleine	Mayor, Buller District Council
Laura Coll McLaughlin	West Coast Regional Council – Buller constituency
John Hill	West Coast Regional Council – Buller constituency
Phil Rutherford	Buller District Council
Jo Howard	Buller District Council
Francois Tumahai	Te Rūnanga O Ngāti Waewae
James Caygill	Waka Kotahi NZTA
Dan Moloney	Westport Area Community Representative
Jodi Murray	Westport Area Community Representative

In attendance:

Nichola Costley (Secretariat)	Staff, West Coast Regional Council
Sharon Mason	Chief Executive, Buller District Council
Heather Mabin	Chief Executive, West Coast Regional Council
Randal Beal	Staff, West Coast Regional Council
Matt Gardner	Land River Sea Consulting Limited
John Hutchings	Henley Hutchings

Westport Rating District Joint Committee

1. Welcome (*Haere mai*)
2. Apologies (*Ngā Pa Pouri*)
3. Declarations of Interest

Reports

4. Long Term Plan 2021-31 Outcomes
5. Westport Rating District Works and Recommendations
 - 5.1 Attachment 1: Report on Technical Advisory Group Workshops
 - 5.2 Presentation of Land River Sea Modelling (Matthew Gardner) (*no attachment*)
 - 5.3 Attachment 2: Report on State of Emergency Works
 - 5.4 Attachment 3: Report on Westport Flood Protection Scheme – Stage 1 Works
 - 5.5 Attachment 4: Report on Retrospective Maintenance Works
6. Medium term actions: Initial matters for consideration
7. General Business
8. Close of meeting

H. Mabin
Chief Executive
West Coast Regional Council

S. Mason
Chief Executive
Buller District Council

Report to: Westport Joint Committee	Meeting Date: 3 March 2022
Title of Item: Long-term Plan Outcomes	
Report by: Nichola Costley – WCRC Manager Strategy and Communications	
Reviewed by: Heather Mabin, WCRC Chief Executive	
Public excluded? No	

Report Purpose

To provide the Joint Committee with a briefing on the outcomes of the West Coast Regional Council’s Long-term Plan outcomes.

Report Summary

The West Coast Regional Council consulted on two proposals for flood protection in Westport through its 2021 Long-term Plan. A summary of the consultation results is provided in this report.

Recommendations

It is recommended that the Joint Committee resolve to:

1. Receive this report.

Issues and Discussion

Background


The West Coast Regional Council released its Long-term Plan Consultation Document (Consultation Document) in August 2021. Two options for flood protection were proposed (as shown below).



Figure 8: Option 1 - Partial stopbanks and flood wall scheme



Figure 9: Option 2 - Extensive stopbanks and flood wall scheme

Option 1 - Preferred 	Option 2
Development of partial stopbanks and flood wall scheme estimated at \$3.4 million.	Development of an extensive stopbank and flood wall scheme estimated at \$10.2 million.
But what will that cost me? \$25.93 per \$100,000 of Capital Value per year, commencing in 2022/23.	But what will that cost me? \$77.78 per \$100,000 of Capital Value per year, commencing in 2022/23.
Pre-construction \$1.35 per \$100,000 of Capital Value per year, commencing in 2022/23.	Pre-construction \$2.28 per \$100,000 of Capital Value per year, commencing in 2022/23.
Maintenance Any flood protection scheme will require maintenance, administration and insurance, however these costs are unknown at this point.	Maintenance Any flood protection scheme will require maintenance, administration and insurance, however these costs are unknown at this point.

The recommendations of the 2100 Working Group to both Councils in 2019 was the basis for the inclusion of a proposal for Westport, see Attachment 1.

The Consultation Document advised that to prepare to undertake the preferred protection scheme option, the survey and design work would be undertaken in the 2021/22 financial year. A flood modelling review would also be required to ensure the flood protection scheme would meet the recommended level of service consulted on. These costs would be recovered through a targeted rate in the 2022/23 year.

A total of 621 submissions were received on the consultation document.

A summary of the support of the options for the Westport Flood Protection proposal is included below:

Results from those residing within the rating district:

- Option 1 11% (28)
- Option 2 71% (182)
- Neither option 14% (22)
- Supported submission from Buller District Council 3% (7)

Results from those residing outside of the rating district:

- Option 1 53% (18)
- Option 2 38% (13)
- Neither option 9% (3)

Based on the responses from the submissions from ratepayers in the Rating District, who supported the construction of an extensive stopbank and flood wall scheme, Management recommended Council adopt Option 2.

Council recognised that there was significant additional information that was provided through the consultation with the community. The extract from the Minutes of the Council meeting held in October that adopted the Long-term Plan 2021-31 reads:

Topic 9 – Westport Rating District Flood protection works

- Option 1 – Development of partial stopbanks and flood wall scheme estimated at \$3.4 million.
- Option 2 – Development of an extensive stopbank and flood wall scheme estimated at \$10.2 million

Moved (Hill / Coll McLaughlin)

That based on the submissions, it was agreed that Option 2 would be progressed.

Carried

Extensive discussion took place and it was noted that there was overwhelming support from ratepayers in Westport for the construction of extensive floodwalls and stopbanks, and that they would like this work started as soon as possible. Councillors recognised that there was significant additional information provided by submitters and this must be considered. It was also noted that consideration needs to be given to adverse impacts on ratepayers upstream from the proposed planned infrastructure.

A copy of the information obtained during consultation is attached to this report.

Attachments

Attachment 1: West Coast Regional Council & Buller District Council *Westport 2100 – Recommendations of the Working Group*, 28 September 2021.

Attachment 2: West Coast Regional Council- Summary of Long-term Plan feedback

THE WEST COAST REGIONAL COUNCIL

Prepared for: West Coast Regional Council & Buller District Council
Prepared by: Nichola Costley – Manager Strategy and Communications
& Westport 2100 Group (moved by Neal Clementson/seconded by Grant Weston)
Date: 28 September 2019
Subject: **Westport 2100 – Recommendations of the Working Group**

Purpose

To present the phase one recommendations of the Westport 2100 Working Group to Council to be included in future work programmes.

Background

The Westport 2100 Working Group was formed at the end of 2018 and met for the first time in March 2019.

The purpose of the Westport 2100 Working Group has been to engage with the Westport community and work together, with Council staff, to identify a pathway forward for the town for the benefit of future generations. This project has a long term focus and is to result in recommendations to the Buller District Council and West Coast Regional Council for future work programmes for civil defence, hydrology and operations.

The Group has also been required to:

- identify the work required to enhance the resilience, and protect, the Westport community;
- prioritise the projects within the work programme to deliver on this; and
- determine how this work could be funded and resourced.

Review of the Westport 2100 hazardscape

The Group has met monthly to review the hazardscape of the Westport 2100 area. This has included the risks associated with:

- fluvial flooding from the Buller River;
- coastal inundation;
- sea level rise and the increase in severe weather events;
- earthquake risk; and
- threat of tsunami.

There has also been discussion undertaken around:

- the Orowaiti overflow;
- build up of gravel and shingle bars in the Buller River;
- telemetry and warning systems;
- planning and zoning; and
- robustness of transport routes and other critical infrastructure.

Over this time the Group has drafted a series of short, medium and long term recommendations for the Councils to consider adopting into their future work programmes for civil defence, hydrology and operations. However, the Group also recommends that these be split into two phases as further investigative work is required on some matters to fully quantify the risk and to identify robust options for the medium to long term. Once this work has been completed, the Group can reconvene and provide further detailed recommendations around the management of risks associated with fluvial flooding, sea level rise and more severe and frequent weather events, potentially in the form of hard protection structures.

This two phased approach will ensure that those actions that can be undertaken quickly, or can commence now, can get underway and the Westport area can grow its resilience to hazards now.

Budget for future work

A specific budget was not established for the Westport 2100 Group as it was unknown what the Group may have required at the start of this process. Now that the recommendations have been identified, the costs of the various work streams can be calculated and funding of these considered.

The Group is proposing that several of the recommendations be funded through a targeted rate due to their importance in being accelerated to address immediate concerns. These include:

1. As per the NIWA flood forecasting roadmap, completion of the early warning system for the Buller River catchment to be operational by mid-2020

2. Modelling of above from mid 2020.
3. Completion of a study of islands and gravel bars from Martins Island to Organs Island with recommendations for gravel/aggregate management.
4. Development of a scheme which would provide protection from inundation by 1% exceedance flooding, taking into account the effects of sea level rise and the more frequent and severe weather events predicted.

Other work can be implemented through current work streams, dealt with through future Annual or Long Term processes, or considered by the rating district for funding.

Note that any future potential protection scheme would be consulted on with the community.

Recommendations of the Westport 2100 Group

Throughout the course of the Westport 2100 meetings, aspirations for the future of the wider Westport area that came through identified:

- Westport as a thriving and resilient town, knowledgeable about the hazards it faces with a community who is prepared in case of an event.
- Critical infrastructure is able to continue to undertake business as usual (BAU) in the case of an event
- In the short term, actions will seek to defend against flood risk, move towards adapting in the medium term, with a view towards providing for relocation through planning provisions in the long term.
- Local government, health, civil defence, the community and other stakeholders will work together to plan for their responses to an event at a community, organisational and individual level.
- Development of the Te Tai o Poutini Plan (TTPP) will incorporate clear direction for hazard mitigation and options for the future for the economic, social and cultural wellbeing of the wider Westport community.

To achieve these aspirations, the Westport 2100 Group have identified the following recommendations and highlighted whether they are to be undertaken during a phase 1 or phase 2 workstream.

The Westport 2100 Group has defined the timeframes as follows:

- Short term 18 months
- Medium term 18 months to 5 years
- Long term 5+ years

Table 1: Recommendations of the Westport 2100 Group

Timeframe	Action	Responsible agency	Potentially funded via	Phase
Evacuation plans and community preparedness				
Short	Complete the development of an evacuation plan for the Westport community, including robust triggers for evacuation and the process for warning dissemination.	CDEM	BAU budget	1
Short	As part of the evacuation planning process, confirm evacuation sites and the preparedness of those to receive evacuees.	CDEM	BAU budget	1
Short	Review and test health facility evacuation planning.	WCDHB		1
Short-medium	Evacuation plans are to be socialised and tested with the community.	CDEM	BAU budget	1
Medium - long	Evacuation plans are to be reviewed and updated following testing, implementation during an event, or when infrastructure upgrades or new information will result in changing timing of evacuation actions.	CDEM	BAU budget	1
Short – Medium - Long	Work with the community to build awareness and knowledge of the hazardscape and develop the resources to better prepare, and respond, to events.	CDEM	BAU budget	1
Forecasting and modelling				
Short	Accelerate the installation of the telemetry system for the Buller catchment (one outstanding asset)	WCRC	Rating district	1

Timeframe	Action	Responsible agency	Potentially funded via	Phase
Short-medium	Adopt the recommendations on the NIWA report –Flood forecasting roadmap for evacuation warnings and see that these are implemented in order to have the system operational within a year of commencing these.	WCRC	Rating district	1
Short - Medium	Recognising that accurate forecasting and impacts of rainfall accumulations can take several (5+) years, commence modelling as soon as possible to gain certainty of key information in the future.	WCRC	Rating district	1
Medium - Long	Review modelling data following the implementation of other mitigations (such as hard structures) as required.	WCRC	Rating district	2
Flood protection structures				
Short	<p>Obtain expert advice as to the development of a scheme which would provide protection from inundation by 1% exceedance flooding, taking into account the effects of sea level rise and the more frequent and severe weather events predicted.</p> <p>This assessment would include:</p> <ul style="list-style-type: none"> - the ability to utilise the current structures in place; - potential weak points in current structures and the feasibility to strengthen these in the short to medium term; - confirmation of the flow path of flood water and potential impact on Carters Beach - confirmation of the severity of flood that would impact the airport and its access routes. <p>Advice would also include:</p> <ul style="list-style-type: none"> - the viability of using the Orowaiti for flood mitigation. 	WCRC	Rating district	1
Medium	Present an option to the Westport community for a flood protection scheme to defend against flood hazard.	WCRC	Rating district	2
Medium	Undertake development of flood protection scheme as per outcomes of community consultation.		Rating district	2
<p>Note: The development of hard protection structures for Westport is complicated and any protection proposal will need to take into consideration the effects of both river flooding, sea level rise and coastal inundation to ensure the effects of another hazard are not exacerbated when defending against another.</p>				
Other flood management – infrastructure, river and gravel				
Long	<p>As part of the recommendation to obtain expert advice on the development of a flood protection scheme above, the assessment is to also recognise that flood management is more than just hard protection structures. Advice would also review options for alternative flood management infrastructure, such as:</p> <ul style="list-style-type: none"> - establishing the viability, location and type of pump stations. For example diesel powered may be more advisable than electrical pump systems - upgrading the combined stormwater/sewerage systems - identifying other infrastructure upgrades that may assist. 	WCRC/BDC	Rating district and BDC	2
Short	As part of the recommendation to obtain expert advice on the development of a flood protection scheme above, the assessment will also include a study of the gravel islands and bars from Martins Island to Organs Island with recommendations for gravel/aggregate management. The assessment will also review:	WCRC	Rating district	1

Timeframe	Action	Responsible agency	Potentially funded via	Phase
	<ul style="list-style-type: none"> - whether gravel is moving through the river - if there is a requirement for gravel extraction - whether the removal of gravel from Organ's Island would provide beneficial effects downstream - the effects of the gravel alongside the half tide wall - the requirement of any form of maintenance programme for the control of river gravel. 			
Short – Medium	Outcomes of the recommendations identified above are to be built into the consideration of hard protection structures and river flow modelling for evacuation.	WCRC	Rating district	2
Critical infrastructure				
Ongoing	<p>Advocate that new critical infrastructure is:</p> <ul style="list-style-type: none"> - Fit for purpose - Sited in an appropriate location recognising risks of the area and their role and function within their community - Accessible to communities, and the vulnerable, during peacetime and adverse events. 	Multi-agency		1
Medium-Long	Appropriate building standards are included within the TTPP recognising the various effects of the wider hazardscape. and the long term time frame anticipated before the One District Plan is operational	WCRC / BDC	BAU budget	1
Ongoing	Advocate for robust internal plans to be developed and maintained for all critical infrastructure facilities	Multi-agency		1
<p>Notes:</p> <p>Critical infrastructure, such as health facilities, must be located within their community in order to provide services to the vulnerable, as well as being accessible to both its ancillary services such as pharmacies, and its workforce.</p> <p>The IFHC is anticipated to have a 50-year lifespan. At this time, there may be sufficient population elsewhere in Westport which could lead to a future relocation or upgraded protection measures..</p>				
Protecting transport routes				
Short	<p>Egress points and routes (road and rail) will be assessed, and if necessary surveyed, to check that they will be available and intact in the event of a major flood. This would also include:</p> <ul style="list-style-type: none"> - The identification of low spots on the access routes, and the water levels whereby it becomes unpassable/unsafe. - Whether the bridge, and its approaches, are high enough, looking at potential flood modelling scenarios. - Review the effect river flows over the bridge approaches would have. 	NZTA / BDC		1
Medium	<p>Address any deficiencies, or work identified by the above action. Until these have been identified, budgeting and planning for these cannot be determined. However, these are a priority for the future.</p> <p>Note - Projects undertaken to address potential deficiencies would be assessed as part of any proposal to ensure that it would not exacerbate issues in other areas (e.g. would building up bridge approaches on each side create a "dam" forcing water into the town on the eastern side?</p>	NZTA/BDC		1/2
Short	Current status of egress routes (point at which the route is compromised) is built into response and evacuation plans. Expected that this will change over time as they are improved	CDEM	BAU budget	1

Timeframe	Action	Responsible agency	Potentially funded via	Phase
	or heights raised.			
Planning provisions and hazard information				
Short	Support the undertaking of LiDAR for the West Coast and particularly Westport and surrounding areas.	BDC / WCRC		1
Short – Medium – Long	Up to date hazard information is used to inform the development of the TTPP. This information is also to be recognised and adopted by the Buller District Council for inclusion on LIMs.	BDC / WCRC	BAU budget	1/2
Short – Medium	Recommend to the Buller District Council and West Coast Regional Council to be very considered in the decisions that are made around planning provisions for the future to take into account the effect and impact of hazards (bearing in mind the 2100 Group ceases to exist after 2020.)	2100 Group		1
Long	TTPP development to include: - zoning within the wider Westport area to avoid new development in hazard prone areas and provide more suitable areas for residential development - more stringent building restrictions within hazard areas to encourage organic relocation over time.	BDC / WCRC	BAU budget	1/2
Medium - Long	Consider location and development of community assets (including Reserves and Recreational assets) in areas not affected or threatened by climate change.	BDC	Future LTP/Annual Plans	2
Medium-Long	Recommend that the TTPP be clear on the decision making to be undertaken post-event in regards to declaring areas uninhabitable.	BDC / WCRC	BAU budget	1/2
Short – Medium – Long	Hazard information is conveyed to the community in easy to understand formats e.g. sliding scale of sea level rise see Greater Wellington example.	WCRC/BDC/ CDEM	BAU budget	1/2
Relocation				
Short – Medium – Long	It is possible that parts of Westport may not be able to remain in their current location in the future recognising the unpredictable effects of natural hazards, including climate change. The development of the TTPP provides an opportunity to start discussing options for the future as well as in other high level documentation for the District.	BDC/WCRC	BAU budget	1/2
Long	Consider the relocation of Westport as a long term outcome recognising that this may not occur for 50, 80, 100 or more years.	BDC / WCRC	BAU budget	1/2
Short	Update the cost estimates from the 2017 assessment report to potentially support the review for any form of partial or full relocation, as these cost figures did not reflect the effect of sea level rise and climate change. These figures should be spread over a long enough time frame that future generations will share in the financial burden and benefits.	WCRC	Rating district	2

Limitations

The Westport 2100 Group acknowledges that there are limitations to the recommendations they have put forward. It is likely that these will form many of the questions and concerns of the public. These include:

- *How do you implement a plan when you do not know with complete certainty what will happen?*

The Group appreciates that they are reliant on the best information that is available at the time when decisions, or in this case recommendations, are made. There is no data available to inform when the next significant flood, earthquake or storm surge will occur. There is no precise data on sea level rise, how much by when. As a result, it is critical that the CDEM planning, community preparedness and evacuation route protection be prioritised.

- *When considering hard protection structures, such as floodwalls, how much should be put in place, or spent on it, before the community decides no more?*

There will come a point where the cost is too high that the community will decide that they can no longer pay for protection. Alternatively, the hazard risk may increase to a level that the community can no longer live with. However, what those points will be are unknown at this stage. It would be wise to adopt an adaptive planning approach allowing us to change our actions as key environmental triggers occur.

- *Previous consultation work had been completed in 2017 on protection measures and nothing happened. Why do we have to do this again?*

This is a fair question. Several options were presented and the feedback received indicated a desire to do something, however there was no clear final outcome as to what sort of protection works should proceed. This was then followed by the storm surge from Ex-tropical Cyclone Fehi. Further work is required to take into effect the risk from flooding, storm surge and predicted sea level rise.

Next steps

The next steps of the Westport 2100 process are:

- Prior to the report being submitted for inclusion in Council meeting papers a summary document will be prepared for the public to outline where the Group has got to and the next steps.
- Report presented to the West Coast Regional Council and Buller District Council.
- Recommendations for phase 1 are implemented, including the further investigative work required to inform the recommendations in phase 2.

Review the Westport 2100 Working Group membership recognising that there will be new elected members and that some current community representatives may wish to step down.

Note some elected members who are standing down have indicated they would like to remain on the group. This would be beneficial in the retention of information gathered and help ensure continuity of the project.

The Westport 2100 Working Group will continue to have a role ensuring that the recommendations from phase 1 are put into place, advocating for various actions to take place and reviewing the further investigative work to take place and making recommendations for the phase 2 work.

Recommendations

That the West Coast Regional Council:

- 1. Receives this report;*
- 2. Adopts the phase 1 recommendations as identified in Table 1: Recommendations of the Westport 2100 Group, for inclusion in the Long Term Plan 2020-2023 and subsequent Annual Plans, unless they can be prioritised earlier in current business as usual budgets;*
- 3. Establishes a rating district for the wider Westport area to accelerate recommendations to improve the resilience of the Westport community and to undertake the further investigative work required to inform the phase 2 work.*

Chris Coll
Chairman, Westport 2100 Group

Summary of feedback received from Westport through LTP Consultation

Common themes regarding Westport flood protection options:

- Buller
 - Buller River overflow needs to be controlled at 9 Mile Road
 - Dredge the Buller River
 - Constriction of Buller River and flow from the 'necking in' of current walls.
 - Clean out the inlet for the Buller River
 - Remove gravel buildup from Tredenicks Point to Morgan's Island
 - Maintenance of overflows – Morgans Island and Orowaiti
 - Buller River prevented from entering Orowaiti

- Orowaiti
 - Clean out the overflow
 - Keep overflow clear of willows / vegetation
 - Open Orowaiti mouth to the sea
 - Floodgate/control gate for the Orowaiti Overflow
 - Orowaiti needs a new channel below Snodgrass
 - The Orowaiti River mouth needs straightening/move Orowaiti river mouth
 - Bund wall along the Orowaiti
 - Non-return valves on Orowaiti not working properly
 - Swale opposite Snodgrass area to allow Orowaiti to flow to the sea
 - Low level floodway developed for the Orowaiti
 - Orowaiti causeway removed
 - Orowaiti Bridge extended to allow free flow of water
 - Have smaller overflow into Orowaiti.
 - Dish drain in the Orowaiti
 - Diversion channel at the turn of the Orowaiti River

- Reference to other creeks and drainage infrastructure
 - Prevent water coming from the racecourse
 - Culverts need to be cleared at 9 Mile Road area
 - Nine Mile stormwater drains maintenance
 - Managing stormwater – coming back through drains
 - Are current pumping stations adequate
 - Get the pumps working to remove stormwater – always water buildup when heavy rain
 - Culverts north of Excelsior Road intersection need to be removed and replaced with a pier type bridge structure to allow better flows and less blockage in this section of Orowaiti.
 - Cats Creek rerouted away from housing areas
 - Control of Cats Creek or close the creek
 - Drains to river need shutoff devices

- Kiwirail and roading assets
 - Kiwirail structures on Stephens Road pose issue.
 - Raise / change the railway embankment on Stephens Road, more culverts
 - Kiwirail culvert on Stephens Road – size of these
 - Railway and bridges are obstacles that bake the water up and slow it down.
 - Lift road from Orowaiti Bridge to Utopia Road to ensure safe passage out of town. Emergency cut back of speedway
 - Main roads connecting the Buller and Orowaiti bridges to be raised to allow evacuation of town
 - Excelsior Road flooding
 - Road to cemetery raised to same height as bridge

- Other stopbank or floodwalls
 - Repair O'Conor Home stopbank
 - Stopbanking from Buller Bridge to O'Conor Home
 - Bund wall around bridge on Stephens Road to stop road and farm flooding

- Extend stopbank in Option 1 across to German Tce,
- Lower the 'extension' to the Eastern breakwater wall on Buller River to allow excess water to flow over during flood – reduce backup
- Carters Beach
 - Build drains that drain Carters Beach
 - Rockwall also required for Carters beach
 - Protecting Carters Beach from water pushed away from Westport – Golf Links Road
- Other
 - More flood analysis / information required
 - Adapt to rising sea levels
 - Seek Govt funding contribution
 - Move the town/managed retreat
 - Assisted relocation scheme
 - Rating differentials (those protected and those who use Westport as service base)
 - Areas excluded from building
 - Higher foundations
 - Indication of relocation for parts of Westport

Comments referencing the themes regarding Westport Flood Protection

- Westport / Buller River overflow need to be controlled at 9 Mile Road etc. Overflow was where the problem started
- No change – dredge the river, move the town.
- in the recent flood the bulk of the damage came from the Orowaiti side of the town. Regardless of the fact that it's the more expensive option. It is the only option. Do it once do it right.
- build drains that drain Carters Beach.
- Prefer no measures. Analysis of flood risk is deeply flawed and the greater risk is spending too much and it still doesn't protect. Take longer view and manage low-lying retreat.
- look at all options including retreat from the coast and identifying those properties most at risk. By giving preferences you are skewing resources. Time to dissolve WCRC its too much red tape.
- Option 2 – essential to protect whole town and Orowaiti. While I don't own property in Westport, due to recent events since 2018 I believe it imprudent to not adopt Option 2 to protect the whole town area.
- Need more information before making informed decision. Do these options take into account the recent flooding event.
- Option 2 – as live next to the Orowaiti, option 1 will be of no benefit. The Orowaiti River mouth needs straightening.
- Option 2 – lift road from Orowaiti Bridge to Utopia Road to ensure safe passage out of town. Emergency cut back of speedway.
- Option 1 – we must adapt to rising sea levels and changing weather patterns. We cannot and don't have to spend that money. We are not the Netherlands – there are millions of ratepayers there and they've got nowhere else to go.
- Option 2 – if the idea of Option 1 is to prevent loss of life in a flood event, it would seem more cost effective to just evacuate people in such a case as we have advanced warning systems in place on the Buller River. Even in the event of an earthquake causing a slip to block the river then a subsequent surge of water, there would be plenty of warning. I believe Option 2 would do a far better job at protecting the Westport community.
- Against both options. Believe the cost of any protection work should be shared evenly over every property not the current value. The easiest fix is to move the Orowaiti River mouth back to its original exit place. Also clean out the overflow. Option 2 will make Westport into a very large swimming pool – how stupid is that.
- Option 2 – The Orowaiti River is the main problem. Silted up and requires a direct channel at the mouth to the sea.
- Option 2 – less procrastination more action. Why is opening the Orowaiti to the sea not being considered.
- Option 2 – Get the Govt to contribute – lobby! Advocate, Get this national money it is there. Please just get on with the flood protection work. Work on getting the money from the Govt. Redirect the proceeds from the carbon tax.
- Option 1 – permit building on higher ground only. Why cant the Buller River be dredged regularly? National disasters are unpredictable. Why invest when it may not happen.
- Neither – not in favour of Option 1 – not protection for Snodgrass or North End of Westport. Option 2 needs more information on cost. Orowaiti River needs a new channel below Snodgrass. Flood gates need to work on culverts.
- Need to take into account climate change and also get more accurate costings. This does not mean work should not start e.g. start wall from O'Connor Home to Buller Bridge to protect Menzies, Stout, Roebeck Streets. Also wall around causeway to the dump and cut a channel behind the speedway to North Beach for Orowaiti to flow through in flood.
- Option 2 – all of the town needs flood protection from both rivers. The overflow from the Buller needs to be cleaned out and kept cleared and open so that smaller floods are able to flush the mud out of the Orowaiti River and assist with keeping the floor of the Orowaiti from building up. The buildup in the Orowaiti since the July flood is frightening. This was always a safety valve, why has it been allowed to build-up?
- Option 2 – we have to stop the water coming through the racecourse to the bottom end and hospital and school. Twice in three years – something needs to be done now.
- Option 2 – Orowaiti River needs straightened with a cut through to the sea that can come into play when the river is in flood. This was in place in the early 1960's but gradually filled in with sand. Needs dug out and kept open. Ongoing job to maintain flood relief.
- Option 2 – the whole town needs to be protected not just the threat from the Buller River. Are concerned about the buildup in mud. The inlet from the Buller River needs to be kept open and cleaned out so that smaller floods flush the mud out. The more it builds up the more likely the flood will come over the top. This is essential and would like to see it addressed.
- Option 2 – storm water trapped inside stopbanks how will this be removed into flooded rivers – will it be pumped?
- Nine Mile Road Area - this has two main storm water drains covering the whole area that dump into the Orowaiti River, just past the old abattoir. These are badly blocked and never been cleaned since the 1970's by Wishart Construction for the Westland Catchment Board. They badly need attention- straight out neglect of a Council duty.
- Option recent weather events in Westport, including the July floods, make option 2 the only feasible option. The July event should also inform planning for Option 2. It may well be that some changes will need to be made and also the Orowaiti Cut may be a suitable inclusion.
- Option 2 – plus think they need a drain from the Orowaiti to the sea to act as a relief valve, opened when necessary

- Option 2 – since the July flood these plans will have to be adjusted. Need the Joint Committee with BDC and work together. There is a need for an overflow / canal at Orowaiti to release the excess water to sea. Gardner reported that the railway embankment needs to be raised to save the whole town.
- Live at Carters Beach. A few years ago there were meetings regarding the sea. Were fobbed off saying it's not global warming. We need a rock seawall here also low areas like Hector and Granity.
- Option 2 – Three years ago affected by Cyclone Fehi which killed vegetation. The flooding was caused when the sea surged from the Orowaiti River mouth on high tide. Now this July 2021 flood has increased in intensity. Freshwater (full of residual matter) from the Orowaiti River flooded my property resulting in my house being yellow stickered and subject to repairs. Both floods were caused by the Orowaiti River and must be fully included in the Westport region flood protection.
- Disappointing to note that the explanatory text for Westport Rating District Flood Protection scheme states it is recommended by the Westport Joint Committee that Option 1 is preferred. This is incorrect as no committee has yet been appointed and the explanation is confusing.
- Neither – Do not agree with either option as this is not going to stop the flooding. Westport needs the river dredged regularly. The overflow for the Orowaiti was last cleaned out in 1978. Question why paying rates and this maintenance isn't being done – cleaning and dredged out. No Clrs there to see the water coming out of stormwater drains and travel across roads. If the town floods again with a wall around it, imagine Westport will be a lake. This is an expensive matter and not an easy fix. Start by maintaining overflows e.g. Morgans Island and the Orowaiti River, by dredging out the Buller River and mouth of River. Maybe could sell the gravel to places of need instead of using excuses like Covid to increase rates – pensioners do not get millions of dollars to waste and give themselves a pay rise. Any thought given to putting a channel across from Snodgrass out to the sea.
- More options need to be looked at, like cleaning out the two rivers.
- Option 2 – explanation needed as to why Buller River water is not prevented from entering the Orowaiti River.
- Like to decline either option, as they are now out of date. Like to see further investigation of the best way forward since the recent floods so all the data gathered from this event can be taken into account. Also, the plan may include more than floodwalls e.g. areas being excluded from future building sites, higher foundations and maybe some indication of relocation of parts of Westport.
- Request further consultation regarding flood protection for Westport. Agree with Buller District Council's comments regarding the options put forward by WCRC which feel are inappropriate choices for Westport, moving forward. Unhappy about the "it's either/or" approach on the consultation document. Do not want to be railroaded into making a decision this soon post-flood, as it might not be the best long-term option for the town.
- Option 2 – only option if want to keep water out with tidal rise etc. Chances of bigger flood year after year is increasing. Best option would be to stop any further development of land for building and open up land on the hill before the bridge or on Utopia Road. Allow for a shift of Westport to a better long-term solution.
- Option 2 – it is the one which protects my home. I would also like to add, regular dredging of the Buller River as used to happen will help by lowering the river thereby lowering the water table. I'm desperate for work to begin as we are out of our home for approximately one year, and do not want to go through this again.
- Option 2 – the only viable plan after the July flood, but there are some further points to be addressed:
 - o clean out overflow and open up Orowaiti River mouth so that in flood it can go straight out to sea
 - o remove shingle build up from Buller River and utilize it where possible for protection works
 - o the pumps on the Buller River appear inadequate when the river is in flood – flooding town, Westport Domain, Queen Street, Peel Street areas. Were the pumps working and are they in the correct position and angle as every time there is very heavy rain there is water buildup in this area.
 - o Ensure rail bridges / culverts can cope with increased river flow.
- Option 1 – we own the property but do not reside there. Due to the effects of the last flooding we would like the Council to look at the feasibility of dredging the river mouth up to the bridge to lower the gravel content in the riverbed.
- Both options have the common stopbanks on the eastern boundary of the Buller River and work needs to start while refinement and further investigation takes place.
- Care must be taken to ensure we do not push additional flood water to the west and flood Carters Beach. I would ask that the Carters Beach roadway corner be lifted as the July 2021 flooding was close to overflowing into the residential area. By lifting the road at the Golf Links Road corner and possibly the adjacent cycle track this would contain flood water and safeguard Carters Beach
- Strongly oppose any 'overflow' diversion through to the Orowaiti as this is the problem that ends up flooding Westport. Would appreciate investigation on the benefits of lowering the eastern tip-head wall to allow the Buller River a wider and earlier pathway to the sea. The cost benefit analysis would be helpful regarding this idea. Would like to thank Matt Gardner and the 2100 Group for work undertaken to date. I have the greatest respect for Matt's work and the input that was provided by Chris Coll and others to develop plans. I request that we get started with physical protection work while continuing to refine flood protection for Westport. Request further advocacy to Government to the Response and Recovery Fund to assist with Westport flood protection.
- We have found the process of deciding on flood protection for our beautiful town very difficult. We are reluctant to choose either of the preferred options as detailed in the WCRC LTP Consultation Document 2021 - 31. Our thoughts and ideas for flood protection for Westport are:
 - o To stop the Buller River going into the Orowaiti is to use gabions along the river bank. Tie the gabions together.
 - o Use large rocks at the bottom of each gabions then fill with 70mm to 200mm size rocks.

- Place each gabions below the scour depth 4. Use 90 to 100 ton diggers working in the Buller River clearing gravel and put the gravel taken from the river behind the gabions to create a firm stop bank.
- This design would be cheaper, more flexible and a greener option than solid concrete or granite rocks.
- Option 2 - As a red stickered house in Menzies Street Westport we need for a flood wall along the Buller river to be done now not in 6-12 months' time while you the councils arguing over what needs to be done. Stop wasting our rate money on more consultation. Use the knowledge and expertise that we have in our community to get the job done. Option 2 will protect the Westport/Snodgrass area better than option 1 but will always need to be maintained and added to in the climate change regardless of the cost to ratepayers. If we want to live in the Buller then we as ratepayers need to pay the price to protect our homes. In the meantime the Orowaiti overflow needs to be cleared out to work properly and the gravel build up in the river from Tredenicks Point to Morgan's Island up the river needs to be taken out for the river to allow for more spade for the flood waters to flow. This needs to be done now before the next flood and who knows when that would be. We also don't know if we are going to get insurance for flood but would have a better chance if our properties were protected by a flood wall
- Both plan A and B direct floodwaters toward properties on the western side of the Buller River. A bund is planned for the township of Carters Beach. Property and homes on Schadick Ave and along the road to Carters Beach some of which were unaffected by the July flood are all threatened by a Westport wall. I would have thought confining the river within its banks to be a priority. Gravel from earthquakes in the 60's and 70's has slowly rolled downstream and raised the riverbed. There is an endless supply yet to arrive. Would dredging and removing gravel have no effect on flood levels. We live at 50 Schadick Ave and our house was spared by the July flood. A Westport wall presents a greater threat than doing nothing at all. I trust you don't expect us to subsidize our own demise with rate rises as well.
- Want flood protection for Westport and for WCRC to work with BDC to develop a comprehensive plan with clear demarcation of responsibilities and timeframes. Plan needs to include BDC stormwater and pump stations and a review of what did and didn't work in the 2021 July event.
- Neither – not enough information available to assess. Floodwalls will deflect water across to Carters Beach and airport.
- Erection of floodwalls completely surrounding the town of Westport would be greatly dependent on being able to pump out excess water and stop inundation from multiple entry points. Even a small breach in the system would be catastrophic remembering noting 100 percent.
- There has not been enough consideration given to the impacts of this walling. More focus is needed on where both the Buller and Orowaiti flow and what can be achieved.
- The project will be very expensive and above ratepayer ability to pay. These flood waters flow from areas outside of our district so would expect significant government contribution.
- Both options will deflect high volumes of water across to the Carters Beach side and increasing our likelihood of flooding. Carters Beach has not been previously affected by the Buller River flooding and did not need a protection bund?
- The Buller River will be directed through to the airport (our lifeline)
- Our concern in Carters Beach is with the proposed bund being placed behind. With the more imminent tidal sea surge risk more on an issue here we are left scratching our heads on the logic.
- Neither – feel further investigation is needed with all relevant options to be looked at. Unfortunate that the drop-in session was not able to be held. Would have been good to happen at a later date.
- Points about keeping the water in the Buller River:
 - You need a team enquiry for solutions
 - Not just made up of expensive qualified engineers – they some times have an impractical solution and agenda
 - Include people in the team who have had:
 - > Earthworking experience – ie Paul Avery
 - > Previous experience in managing the Buller River water /catchment, past and current.
 - > Engineers – they need to take practical advice from the first 2
 - As to paying for it – lobby the central Government hard. Then I suppose we all will have to pay the balance over a period of time.
- Kiwirail need to check the suitability of the line Palmerston St and Queen St along Roebuck. This has been raised by Matt Gardner.
- Stopbanking form Buller Bridge – O'Conor Home – Legal road is urgently required.
- It is my understanding that there is, as yet, no rating district established for funding Buller river flood protection work. The Westport Rating District consulted on in 2020 was specifically for funding the advanced flood warning system. The result of that submission process was somewhat suspect as alternative funding was announced before submissions closed. There is a vast difference indicating support for a \$155,000 contribution toward an early warning system and committing that same category of ratepayers to funding a more than \$10,000,000 flood protection scheme that will provide no benefit to a large number of ratepayers included in the presently defined Rating District. The proposed protection plans will in fact adversely affect properties in the Nine Mile and Excelsior Road areas and on the western side of the lower Buller River. As the July 2021 flood has not been taken into account when formulating the two options that have been presented for consideration it would be wrong to express a preference at this time. There are certainly many lessons to be learned from that flood event that no amount of computer modelling could hope to identify. The constricted time-line around LTP deliberation and adoption provides no opportunity for meaningful input and evaluation of that detail.
- Option 2 - consider this Option is very important with further consideration being given to the following points:
 - To excavate the gravel from the Buller river to increase the river flow.
 - Relocating and excavating the mouth of the orowaiti river further west.
 - Clearing of the Orowaiti overflow.

- Discussion with Trans Rail re culverts on Stephens Road. A lot of problems have been caused through these Culverts not being big enough and they have restricted the flow of water. Trans Rail replaced a bridge with culverts which has caused problems.
- The town stormwater outward flow must be allowed for in Option 2. Collaboration with Buller District Council
- Government help must be provided as this the costs of the Flood protection is too much for the town ratepayers to finance.
- Construction costs will only increase as time goes by. Option 2 may be the more costly option now, however delaying this option now will only increase costs for comprehensive stop banks which are required to protect the whole town of Westport further down the track and this will create a larger / further burden to the ratepayers in the district. Protection is needed for both the Buller River and the Orowaiti River, especially as the majority of the flood water and damage to the town in the July 2021 floods came from the Orowaiti river.
- Other - I do not believe that enough Community consultation has occurred or information been given in order for me to make a choice between the two options the WCRC has offered. My family were heavily impacted by the recent floods and we own four houses all within further threat of flooding. Three of these properties had not flooded previously. I wish for there to be further exploration of options as well as determination around the factors that are seriously increasing our risk. I call upon the WCRC to show duty of care by engaging with our community to explore a broader range of opinions and to find the best rather than the most expedient solution to this problem.
- Option neither - I disagree with both the WCRC options as I think the overflow is more important. Putting a bank around the town will not fix the rivers. My experiences with the rivers follows. I am 90 and have lived in Buller almost all the time. What I have to say would take hours, -- goes back almost 70 years. Will try and be brief. Orowaiti over-flow exit, (or lack of,) obviously caused the most property damage. Early 50's I moved from Karamea to live on the high embankment at Snodgrass above the estuary and next to the Rowing Club Sheds. Along with about 9 or 10 other families. On the road in there was only one home on the right hand side, on a high mound, "still there" (Risk Family.) The road was low, Spring tides crossed regularly. Was raised a little but still flooded. Waist high and more. No homes to flood, they came later and did flood. The Council of the day attempted to cut a channel the then short distance in a direct line to the sea. They did this with just two bulldozers, leaving a little each end for a quick opening. They did not have much 'low tide time' to open one channel and close the existing one. All went well until the soft sand and mud was all they had to close the old channel failed. They did get a mound over but was breached in the next tide or two. If it had been piled and with rock or similar they would have won. I used to walk over with a local group to trawl in the sea for Flounder. The channel and our flounder hole are now being grazed by cattle, and the river mouth away North East. With the silted up and grown over river bed even a moderate flood combined with high tide water will take to the low ground rather than turn back on it's self at right angles... (down through the race Course , Derby Street etc.) The Sea Surge did the dirty and came around the back way. After flooding low Snodgrass homes , and no where else to go it took the same route as the flood.). Now To Easton's Road, Cat's Creek area. Flooded from the Over Flow several times in my time. Cleaned out "Piggy Wrights piggery" and flooded a swamp that Colin Knight was trying to turn into a nursery. Flooded the Mill Houses which were far too low. No other great damage until July 2021. New houses every where by now, mostly on low ground and badly flooded. (a point here,) the 1970 flood Came down Bentham St. by way of Cat's Creek and also flooded most of the South School Play ground. The July flood did not!!!! "May have been Tidal timing." Cat's Creek is a problem. [Fred Musgrove] wanted to cut it off and send it down through the pound and behind the Abattoir to the Orowaiti. one of the home owners on Easton's Rd behind Craddock Park told me the water came from two directions. He is right, I have had to jet boat there. It comes up through the Easton 's Road Culvert end and down thru. the Railway bridge behind Johnson Brothers, past the back of the Mill houses and Pearson's yard and meets up near the Nursery. This is what Fred wanted to block off at both ends. There is a lot more to his story I can't add here. As you know Cat's Creek has an outlet to Brougham St. Also would cut this off. I imagine a Flood wall further up would isolate all this. Running out of time so to the Buller. I spent 8 years boating on the Buller in flood rescue and in the case of the 1968 earthquake Trip to White Cliff's, and the complete blockage of the Buller I ran out of water and had to leave my boat at Windy point. The July flood did not enter the main town, apart from the Domain area where it has always flooded. it did back up storm water drains etc. As I have said before I have not seen a flood cross the railway lines at all. During the height of this flood you could have walked from the floating basin to Te Kuha without getting wet feet. So the line is a good minimum height for building. If you are above the line probably ok. Before and since the earthquake the River is a mess, shoaled up and deflecting flood water into soft banks. This Zig Zagging gets progressively worse as the inside of the curve builds up and the out-side scours. That is why for economy we tend to travel upstream on the slower inside and downstream on the faster outside. The Buller in flood carries a huge amount of water mixed with a big percentage of solids. The solids are dropped when the River slows. I could never understand why the tip heads were narrowed. Water does not compress so meeting a wedge Cannot go sideways only up, slows and drops solids in the river. That is why at one time 50 yards back from the Western tip we could step off the rocks onto a 30-yard sand bar in the River. Don't know how far across the River. Harbour people would. I also happened to see the Milburn Carrier run aground and then recover. This was in the River and I was on the Eastern Tip
- Neither - I am against both of these proposals for reasons that have been well explored by letters and articles in the Westport News. I am a ratepayer in Westport and am submitting as an individual I own one property on the Orowaiti River and co-own another on the same river. Neither Option seem adequately costed as for example labour costs are not included. I was unable to source more information about heights of the flood walls etc. on the reference given in the booklet. Generally there is too little information. For example, if Option 2 went ahead and huge trees in a torrential flood smashed a hole in a wall the town would quickly flood as water could not escape through any floodgates. See my letter in the Westport News, 7/09/21. for more details. In the same paper Grant Weston's letter suggests options to widen and deepen the river...my preferred option.
- Option 1 – close the Orowaiti overflow channel or control overflow. Keep good Buller River channel. Some bund wall need doing on Orowaiti River with the control from Cats Creek or close the creek. Bund wall around bridge on Stephens Road to stop road and farm flooding.
- Feel more work needs to be done, and further options need to be looked at following the recent flooding event.
- Option 2 – surely cleaning out the rivers of gravel build-up should also be included.

- Option 2 - Government support should be sought for part of the cost. DHB and school properties form a significant footprint in Westport and the government as owner of those properties should pay its share of the protection afforded by the scheme. Further research needs to be done in the light of the recent flood to ensure that the proposed floodwall design is in line with the data gathered from the July flood.
- Option 2 - This will buy the town some time only. Local town planners will be required to send a deputation to Wellington to request assistance to expand the township of Westport on adjacent elevated land. I see no long term investment opportunity for commercial or residential development on the flood plain currently supporting Westport township. Long term development opportunities exist only on elevated land both south and north of the current town.
- Option 2 - I would like to see the town fully protected but am also interested in why the cut through for the Orowaiti is no longer an option. It does seem to make sense to get rid of the water as quickly as possible and going round a tight corner would be a lot slower than a straight line to the sea. Perhaps funding for the scheme would be better spread over 50 years, this could make it more manageable particularly if things do need repairing and/or height added. Some contribution from outlying communities would probably be reasonable, given the town itself is essential for daily life for most people in the district. Hopefully the government will be generous with some funding and also perhaps the Buller District council will have some of the 8 million flood recovery money left to assist with offsetting the increase in rates.
- Option 2 - As I live in Kawatiri place and the back of Cats Creek, would it be possible to put flood protection along the creek and have the creeks cleaned out.
- Option 2 - Based on the current information provided, and forced to choose between two options, option 2 has my preference. However, I suggest the following factors should also be taken into account:
 1. It is understood the hydraulic model has recently been calibrated against the July 2021 flooding event. On the other hand, as far as I am aware the total financial damages of the July 2021 flooding have not yet been communicated to the public. Because the cost of the proposed protection needs to be balanced against the risk of flooding damages, it seems premature to ask the public to make a choice between only two options, if the total cost of damage has not been communicated by WCRC, so the public can only rely on the earlier damage estimates from the NIWA Riskscape model. Obviously, recent cost increases (in particular for construction and repairs) would need to be included so the financial cost is 'calibrated' to 2021.
 2. It is understood the WCRC's preferred option 1 is mainly driven by a perceived need to limit the rates rise for the relatively small rating district of Westport. While this in itself is a valid consideration, it disregards the impact a flooding event has on health, social fabric, sense of security. While it is difficult to quantify such factors into dollar figures, these should nonetheless have been included in the proposal. From what is presented in the Long Term Consultation Document and the Buller River Detailed Options Assessment report, such factors have not been allowed for in the financial damage assessment. I believe this focus on cost and technical solutions, without considering the wider impacts of a major flooding event, is a significant omission in the proposal.
 3. The proposal is based on two options to provide flood protection for Westport. Under option 2, extensive stopbanks are proposed on the southern side of Westport. The current proposal does not specify if these stopbanks are accessible for the general public. These stopbanks would provide a good opportunity to extend the walking/running/cycling opportunities around Westport. As demonstrated by the Old Ghost Road and the Kawatiri Trail, such offerings increase domestic tourism and can also attract significant central government funding. I would therefore suggest to develop a business case to promote this concept to central government, promoting benefits as increased access to safe corridors for walking/running/cycling, improved economic resilience by having more touristic offerings, etc..
 4. Following the July 2021 flooding event, central government has already provided some \$9 million for flood relief, and this does not include any money earmarked for flood protection. When a suitable proposal is presented to central government, it seems plausible that some of the cost for flood protection could be funded through their contribution.
 5. Also, the Earthquake Commission and private insurance companies will have incurred significant cost due to the flooding. While it may require a rethink of their business model to fund prevention, rather post-event damage, EQC and insurance companies are stakeholders and would benefit of having improved flooding protection in Westport. While it may be a big ask for WCRC to leverage EQC and insurers directly into contributing for a Westport flood defence scheme, it may be possible for WCRC to nudge central government into starting such a discussion.

Considering the comments above, I believe the WCRC has been premature in providing very precise costing (in dollars and cents per \$100,000 rated value) for two design options whilst:

- the flood protection is only in concept design stage,
- it does not include a potential foot/cycle path,
- the financial damage from the recent flooding event is still unknown
- the social effects of flooding events are not quantified, therefore focusing the discussion only on the financial side
- other avenues of funding, like contributions from central government, appear not to be explored by WCRC. If significant contributions could be obtained, this would undoubtedly change the current WCRC consultation options
- Option 1 - The total solution for Westport flood protection also needs to include the following activities - they are basic maintenance requirements, that have not been carried out over several years, contributing to the devastating effect of the 2021 flood on the Westport township. These activities are:
 - o Resuming regular dredging of the Buller River channels immediately
 - o Resuming and bring back to standard and depths the Buller River overflows systems, floating basin and lost lagoon immediately
 - o Maintain the bar at the river mouth, including the deposits of gravel from the Buller River dredging onto the bar, which with the Northern current along the coast are transferred to Northern Buller beaches (such as Hector and Granity), supporting the natural cycle of sea protection on the coastline (an exercise in natural Physics)
 - o Tidy up the Orowaiti, river and lagoon including opening up the Orowaiti river mouth directly out from the Bridge to allow the river flow to cleanse the lagoon rather than silt settling in the area between Orowaiti Road and Snodgrass; resulting in flooding of homes which we have seen several times now.

- Consider new building activities to include raised foundations in low lying areas now known from extensive modelling after the 2021 flood event.
- Allow the removal of gravel from the upper Buller River for roading etc, to support a healthy fast flowing river that is not clogged with gravel which overall contributes to rising river levels and likelihood of flooding.

The Activities listed above, especially the Buller and Orowaiti River management activities have been neglected for too long, and while flood walls/stock banks are only being proposed by the WCRC, a holistic approach needs to be taken.

- Dredging of the Buller River, opening of Orowaiti river mouth, and cleaning out of the overflow systems will support fundamental principles of fluid flow - ie. water speeds up through deep/narrow channels, therefore by deepening the Buller River, or directing the flow of the Orowaiti through a new river mouth, will enable the water from a flood event to get out to sea as quickly as possible, without needing to go into the overflow/lagoon systems as much. When water slows down into the lagoons, and overflow areas, the water pools, rises and floods into surrounding properties. Turbulent and fast water flow should be the goal by the river works, to prevent pooling and flooding of surrounding areas. Implore you to take a holistic view, a mixed method approach utilising the assets (i.e. Kawatiri Dredge, and other local equipment and contractors) that the BDC has on hand, to protect the Westport community in a sensible and practical way, including a robust and regular maintenance programme.
- Even as a pensioner - the cost of this option being added to rates will be preferable than risking any or all remaining assets
- Option 2 - Option 1 has no protection from the Orowaiti river. My section has been flooded twice by the Orowaiti (Cyclone Fehi and the July flooding). The non-return valves situated on Orowaiti road supply the drainage right through to lower Domett St, because the larger of the valves has been welded up on the bottom hinge pin the valve flap does not close fully allowing the flow from the river to back up this channel hence flooding Domett St and the surrounding areas. This situation has been pointed out to the BDC but no action has been taken. If the maintenance was kept up to date on these valves we would not have experienced half the flow that we had on both occasions. The build-up of silt and sand is progressively building up in this river requiring a clean out to drop the height of the bed allowing a more controlled flow
- Option 2 - I strongly support Option 2 for the flood protection of Westport because it provides more comprehensive protection for residents and property, from both the Buller and Orowaiti Rivers. Option 1 does not protect Westport from the Orowaiti River, which caused a huge amount of flooding to properties. I would therefore ask that the West Coast Regional Council adopts Option 2. I would also ask that the West Coast Regional Council considers the opening of the Orowaiti River straight through to the sea. I consider this action would assist the flow and direction of the river, and alleviate the build-up and detrimental flow towards the land and properties at the North end of the town.
- Option 2 - Extensive work has been done by various engineers as well as considerable public consultation over the past six or seven years. The July 2021 flood highlighted the consequence of the town having little or no flood protection. While in the long term the town may well have to be moved to higher ground this is obviously not an option at the present. One consideration, that has been mentioned before, is the construction of a swale directly opposite the Snodgrass area that would allow the Orowaiti to flow directly into the sea in a big flood rather than meander a number of kilometres to its current mouth. This might alleviate the build-up of water in the estuary being forced into the racecourse and lowing lying areas of town along the Orowaiti. Doing something is preferable to doing nothing as the likelihood of future floods is guaranteed, we just don't know when. Hopefully political differences at a lock level can be overcome and we can see some work started on flood protection. Every day that passes brings us one day closer to the next big flood.
- Option 2 - Option 1 will not solve the problem unless the flow of the Buller River is contained in the Buller River i.e. cannot overflow into the Orowaiti River. Option 2 is the best solution to keep all of Westport flood free.
- The existing sea mouth of the Orowaiti river estuary is five kilometres from the Orowaiti river bridge. A low level flood way similar to the Buller river overflow should be constructed from east point to the sea (approx distance 1.2 kilometres) and maintained to allow for floodwaters to exit the estuary into the sea during flood events. This will allow for floodwaters to exit and prevent the buildup of sediment which is occurring in the existing estuary river bed on the five kilometre journey to the river mouth. This is an easy fix and will allow floodwater to disperse quickly.
- I believe there are options that sit between option one and two that may enable a more targeted approach to spending. While these require refinement and design especially given the recent flooding event it is important that the risk to life is mitigated and this is largely ensured with parts of option1.
- I ask Councillors to give serious thought to the total package of works that option2 would require including stormwater and potential roading changes etc although not actually a part of flood wall cost these costs will clearly be triggered by the building of flood walls and the same group of ratepayers will need to fund it. It must be considered as a package.
- Option 2 – wonder whether these options have taken into account the recent flooding in Westport. Anything less than Option 2 would be false economy as flooding would simply come in behind the wall. I think that the Orowaiti causeway should be removed and the Orowaiti bridge extended to allow the free flow of flood water. The road from the cemetery to the bridge should be raised to at least the same height as the bridge although a flood wall will achieve this. Main roads connecting the Buller and Orowaiti bridges should be raised to allow evacuation of the town if necessary in case of flooding, i.e. Brougham, Mill, Dommett and Palmerston Streets. Lastly there should be provision for opening a channel directly downstream from the Orowaiti bridge to allow the flood water to be released to sea more quickly by the shortest route possible.
- Option 1 - I would like to see the recovery costs spread over an extended period of 50 years, so as not to incur the bulk of the financial repayments to a single generation. This would also make it a tad easier to bare. I do not agree with the proposals outlined in option 2: the extensive stop banks and flood walls. It seems to me that apart from the removal of all the beautiful river views, we will be turning our town into a gigantic fishpond whenever it rains. According to those who can see so far into the future, clairvoyants I believe they are called, those who completely ignore the actual climate scientists, and NASA, (what would NASA know!) who state that sunspots have more of an effect on our climate than carbon, (interestingly the Climate Scientists all agree on one thing, and one thing only - the media and politicians are looking at something completely different to what the scientists are looking at) ... anyway, as your clairvoyants are predicting more rain, perhaps you can start with the basics, and actually dredge the Buller river, the deeper you make it, the less it flows sideways, and redirect the Orowaiti out to sea, at least

put an overflow in so once the river reaches a certain level it can tip on over and flow straight out. This seems a sensible idea to most people. You can start dredging the Buller tomorrow, we don't have to wait. No point spending money on any stop banks or flood walls if you can not be bothered to do the basics.

- **Option 2** - Why do a half job - we need decent protection for future flooding. The cost is minimal over the term. There are things more than just flood walls though that need addressing. The Buller River needs to have the excess shingle removed to allow more water to flow. The overflow needs to be cleaned from all the broken trees, reeds etc that clogged it up and cause more of the Stafford St area to flood and meet the Orowaiti river. Open up the mouth of the Orowaiti so it goes back to sea. We need to investigate whether our pumping stations are adequate enough to handle the volume of water we get - the same old areas always flood in heavy rain - like top end of Peel St, and around Queen Sts and Menzies St, at the Domain end.
- **Option 2** - Incredulous that we have 2 beaucocratic bodies with totally varying views on the problem and the solution. One important solution would be to actually follow through with the maintenance of any work completed. The Orowaiti overflow was there to help distribute excess water coming down the Buller River. However the over run or diversion is over clogged, never dredged; and as can be seen as recently as the latest flood, not able to do it's job. Let's get this rectified before any decision is made on further seawalls etc. In addition, with the amount of sand, rocks, and debris coming down the Buller River; keeping the silt/sand/rock level lower would enable more water to flow out to sea, so the use of a dredge needs to be utilized more than once every year or two. It's all very well putting out proposals; but unless they are followed through in terms of maintenance, you might as well put sand bags up.
- **Option 2** - While I support option 2. Has the WCRC looked at the option of building an emergency overflow for the Orowaiti River close to where the river originally flowed. This could potentially be incorporated within either option.
- **Enhanced Option 2** - Option 2 as a starting point. Extra consideration needs to be made for the following:
 - o Railway embankment at Stephens Road needs to be changed, more culverts added to help the flow of the water.
 - o Gravel removal on Buller River to assist flood water flow.
 - o Orowaiti river mouth needs to be moved so River doesn't back up at corners and excavation should be considered to clear build up of gravel and mud
 - o An allowance for storm water outflow from town. If we have a lot of floodwalls there needs to be an outlet.
 - o Govt assistance for cost is required, although I am happy to pay a bit more for WCRC rates... They are low.
- **Option 2** - Both options have merit. Figure 1 and figure 2 are of the Westport township. Also need to protect the Carters Beach township from flooding. In the last flood the township was close to being flooded but for the height of the road at the corner of Golf Links, Cape Road. Perhaps the road on this corner could be raised which could alleviate this. Should this not be taken into account, the stop banks surrounding Westport will direct the flood waters towards Carters Beach and the Snodgrass area which could lead to great property damage and maybe loss of life. I believe that something needs to start now and further investigation can continue during this process.
- **Option 2** - Parochial Politics need to be put aside and the most cost effective solution implemented for full flood protection stop banks. We don't need to spend anymore funds on consultants. Listen to the local experts who have been planning this project for years. Lobby central government for more funding. Make Westport a safe and secure town for the future generations.
- I believe other options need to be looked into before deciding on any options. a lot of concern has been raised by locals about these two options. More consideration needs to be undertaken of other options and why they are or are not viable. Walling Westport off from its rivers, which are an asset, should not be undertaken if other options are feasible.
- **Option 2** - Why don't we dredge both the Buller and Orowaiti Rivers and clear the overflow? That would provide a much better flow. We can sell the shingle to offset costs.
- **Option 2** - The WCRC and the BDC need to urgently unite together, in view of reaching agreement on the very best way possible to protect Westport from future floods. Put a side any political agenda's by all involved and simply do the best possible for the town asap. As the Buller district is approximately 80% under Government ownership, a big proportion of the cost should be coming from Central Government. There is too much at stake to procrastinate, Central government should mobilize a team from across the various identities currently involved to arrive at a decision and have it implemented before the year is out.
- **Neither** - as none of these are suitable. They are both very costly and we all know that costs always go over estimation. We the ratepayers will be left with a huge rates bill that is going to cripple our town. My personal choice would be that we look at the overflow via the Orowaiti and clear the overflow routes that have been left to neglect and grow over, also taking the gravel out of the river to give it more depth. Surely this is a win win situation with employment and also where the sale of the gravel can then make money back for the district. Let's for a start fix the overgrown overflow and dig an escape route straight out to the sea via the Orowaiti so it does not have to try and go round a bend. Logical decisions instead of costly decisions is what we need not a flood wall around our whole town or partially around the town that could turn us into a swimming pool should another event happen like this in the not so distant future.
- Can the payments be spread "intergenerationally". I believe the Orowaiti overflow and out let to the sea should be opened up and a more direct line.
- **Option 2** - Your brochure is poorly structured and confusing. In the eye-catching Options list summary you state Option 1 is the preferred option. However in the preamble (small print) you elaborate that this is an option preferred by Westport Joint Committee members (who are they?) In reading further in the preamble it is explained that actually the WCRC preferred option is Option 2. Regardless, I prefer the WCRC Option 2 - extensive stop bank and flood wall protection. Again would like to know past WCRC investment in mitigating the Westport flood risk - particularly in understanding their past investment towards averting Buller River aggregation. (Dredging, innovative initiatives to remove of aggregate upstream etc) I would like to know past annual investment and breakdown in Westport and the Buller district by the WCRC where can I get this? What is division of responsibilities between BDC and WCRC?
- We are unsure if option2 will work and if it does a lot of the water will come through the farm property M J Durkin Ltd at Excelsior Road. As we are living in the path of the overflow if there is less water going through the Buller it must be coming this

way. Bright Street property we were there when the flood in July came through the storm water otherwise the house would not have been flooded. We also got flooded at Excelsior Road (owned by M J Durkin Ltd) which has been the first time since the family has owned the farm ie nearly 100 years.

- **Neither** - I don't support either of the options presented. Believe one of the contributors to our flooding situation is the lack of maintenance of the Buller River floor bed & of the existing flood walls or stop banks. If these 2 issues were addressed the river would flow at a greater depth more directly to the sea. If the overflow from the Buller River to the Orowaiti River & the Orowaiti's exit to the sea were regularly maintained the buildup of water from that river would be minimised.
 - We have people in our community who have dependable knowledge & experience of both these rivers & the current walls e.g. Chris Coll, Jim Walter, Jack Powick, there will be others. Use their experience & expertise in conjunction with your own staff who must be qualified in river management as that is your core business. Give consideration to the past history of these 2 rivers & incorporate it into the future planning. Realise that the issue is more complex & has many more aspects to it but the importance of the maintenance of our rivers is as important as the construction of flood protecting structures.
 - **Option 2** - Although I do not own property in Westport, it is clear Westport has significant issues with long term flooding that are beyond what is proposed in Option 1. The future of Westport needs consultation at a national level before committing local funding.
 - My preferred option is that WCRC work in a collaborative manner with BDC to come up with a solution that best meets the needs of the community of Westport. This would likely mean a mix of hard physical flood protection works coupled with other mitigations including but not limited to building adaptation and possible retreat/relocation.
 - **Other - Option** Agree to the review, design and survey work but need to understand all the ancillary costs including maintenance, admin, and insurance. Also Cost/Benefit, Risk analysis, ecological and aesthetic impacts, social and cultural benefits/disbenefits of aspects of plans.
 - **General Concerns:**
 - o Flood protection and climate change adaptation requires a co-ordinated approach to achieve an affordable, efficient, and effective plan. Each council and other infrastructure providers have responsibilities regarding hazard protection, mitigation. Alongside stopbanks and walls we need to consider 3 waters, power, communications, roading. Building heights, zoning. Future insurance cover. Retreat options. A combined approach will hopefully attract funding opportunities. Joint project team with independent chair consisting of key stakeholders/providers.
- As owner of a commercial building on main street:
- o Aesthetics. I don't think many have a concept of the size of stopbanks, height of concrete banks. How will their appearance be mitigated? How will this affect the commercial port area and the town revitalization plans connecting town with river. Appearance is very important to vitality of town.
 - o Cost Estimates. As noted in audit insufficient evidence to support capital spending assumption. Doesn't consider cost of ancillary work.
 - o Stormwater concerns with stop banking. Requires WCRC/BDC working collaboratively.
 - o Rating. Current targeted rate zone. Need for tiered zoning. What about properties negatively impacted by any work. Full costs need to be understood including insurance and overheads/staff costs redistribution.
- **Neither.** Agree flood protection/climate change adaptation work is required. Not enough information provided to choose either option. Cannot be undertaken without addressing stormwater. Requires joint committee with independent chair to oversee project. Agree to the review, design and survey work but need to understand all the ancillary costs including maintenance, admin, and insurance. Also Cost/Benefit, Risk analysis, ecological and aesthetic impacts, social and cultural benefits/disbenefits of aspects of plans.
- **Concerns:**
 - o Stormwater drainage should a stopbank be constructed. 6 creeks/stormwater drains in less than 1 kilometre two major creeks. One currently has a flood gate which has never been effective due to the silting in estuary. Stopbanks could be a detriment to my property as the boundary has drainage from the Kew Road housing block and Craddock Park. This has significant flows in heavy rain. My own property has two storm water drainage points servicing 2.5 hectares. Stormwater retention would have a more frequent/greater impact on my house site. Effect on biocycle effluent system.
 - o Ecological. Chose to live on site because of natural forested esplanade reserve 20metres wide bordering the Orowaiti. A stopbank, base of 14metres, and construction would devastate this. Would like to look at mitigation/floodwall options and be more involved in design of any options directly affecting my property and borders. Importance of shade cover estuary edges for whitebait etc. What restoration is planned. Affect of culverts/gates etc on fish passage.
 - o Aesthetics. I don't think many have a concept of the size of stopbanks, height of concrete banks. How will their appearance be mitigated?
 - o Cost Estimates. As noted in audit insufficient evidence to support capital spending assumption. Doesn't consider cost of ancillary work. Doesn't acknowledge additional 3 waters and other expenses on BDC of ring banking the township.
- **General Concerns**
 - o Flood protection and climate change adaptation requires a co-ordinated approach to achieve an affordable, efficient, and effective plan. Each council and other infrastructure providers have responsibilities regarding hazard protection, mitigation. Alongside stopbanks and walls we need to consider 3 waters, power, communications, roading. Building heights, zoning. Future insurance cover. Retreat options. A combined approach will hopefully attract funding opportunities. Joint project team with independent chair consisting of key stakeholders/providers.
 - o Needs a staged approach, more detailed plans and costings - further community consultation before final approval.
 - o Current targeted rating zone. Need for tiered zoning. What about properties negatively impacted by any work. Capital rating is very blunt.
 - o object to both options I have too many concerns that in my mind or have not been covered on the insufficient consultation process

- Timing of consultation coincided with lock down. Given no opportunity for 'public' consultation (only limited media information) and not having access to access the Councils consultants reports and other relevant information.
- Following the recent flooding a number of people are focused on getting their lives back into order and not focused on the future. Decisions will be clouded by current emotions.
- We are asked to vote on two options based on a line drawn on the map but have no visual concept of the impact to the town that the wall will have.
- Only through media have it been indicated that height to be 2-3 meters. Visually that would create an imposing eye -saw. Only need to look down the streets of Greymouth to see how a wall will would impact on the outlook of river front.
- Have no idea of detailed plan of where the wall will be put and concerned with the assets and community efforts that will be destroyed. BDC plus community groups have put in a lot of effort to establish walkways/plantings down beside the river. Currently in the process of building a viewing bridge across the railway line fronting onto the river-for what? A viewing platform to see river over the wall!?
- What impact will the wall have on current and future port operations? Is it to be condemned for ever to a fishing port only?
- Obviously the wall is going to limit access to the river and curtail some recreational activities
- As mentioned will the wall going to be high enough? Media reports discuss volumes but don't allude to the fact that constraining a rivers flow into a restricted space concentrates flow energy, increases flood magnitude and accentuates problems downstream.
- Because it can't go wide it so needs to go higher.
- Is all the scientific data as reported in media based on current situation i.e water allowed free access across low/flat land or has been calculated to include the river been confined. Reality is that no one knows the potential height that the river may reach. As mentioned in media it is concerning that this wall might get overwhelmed -then what happens.
- The latest flood was just below the Buller River and over the abutments of the Orowaiti..With higher river levels plus and increase in flow energy what impact will this then have on the structural integrity of both the Buller and Orowaiti bridges.
- I see that a bunding system is to be built around Carters Beach Township. Again there is no detail of where it will be placed or how high is to be. The latest flooding scoured out the road between Carters Beach and Westport. Again by preventing the natural flow of the river and shifting the water away from the town area onto the farmland opposite what's the potential risk of the Buller River via the Martins creek channel cutting through the golf course and airport out to sea impacting on the operations of both the golf course and airport. During the last flood the airport was the only functioning means of access to area with damage to the landing lights from backed-up water which has limiting operations until repairs completed .
- What is the proposals with the building 2-3 meter 'speed humps ' at both Carters Beach access and the Orowaiti Bridge (end of Brougham street) Need heavy vehicle access over both.
- What proposals are there to enable the railway line to continue into Westport?, or this to be sacrificed along with potential business it may bring.
- Option 1 - Only if you ensure water can escape to the sea by keeping the Orowaiti overflow clear, and the Buller river sufficiently dredged.
- Disheartening to see the recent flooding, much of which could have been prevented if a number of measures been put into effect over the preceding 5 years – refer to the Westport 2100 initiative. Disappointing the 2017 Consultation gave no clear majority to any one way forward. Submitters to that process commented on the 'gravel plug' upstream, from the dredged port area, needed to be removed to ensure flood waters and gravel could get easily exit to the sea. Land River Sea consultancy countered saying dredging would do little for flood mitigation, and is now clear to many that this has been a significant factor in the recent flooding.
- Support Option 1 – the development of partial stopbanks and floodwall scheme. Coupled to this is:
 - The removal of the gravel plug from the port upstream to Organs Island
 - Using this gravel material to create stopbanks
 - Enlisting use of a mechanical dredge (not a suction dredge) to shift Buller River bar material
 - On-going gravel removal from the big bend (opposite the Buller Gorge Rd / Coast Rd intersection
 - Removal of bank vegetation (e.g. williows) on the Orowaiti Overflow, and creating a bundered top bank.
- Request that, rather than carrying the above work specifically on Option 1 as presented in the consultation document, WCRC and BDC and the community work together on a flood management solution package that provides an optimal outcome for Westport, with consideration of both physical defences and adaptation options designed in conjunction with each other to give the best long-term outcome for the Westport community.
- If the stopbank in Option 1 extended across to German Terrace (or was left with a smaller overflow into the Orowaiti) that would stop the Orowaiti from flooding into Westport but increase the water flow in the Buller River. Why not do this and build the Buller River flood wall higher? This would be a cheaper option than option 2.
- Full time dredging (24 hours a day) with the tailings to be conveyed to land. Lower the bottom and you lower the top. Selling and freighting gravel out of the district – what investigation has Council undertaken to establish what sale there is for gravel?
- Lowering the “extension” to the Eastern breakwater wall on the Buller River to allow excess water at flood times to flow over the wall and escape quicker from the river – reduce backing up causing flooding back up the river
- Putting a “dish drain” in the Orowaiti River at Snodgrasses bend to the sea to allow excess flow at flood times to escape and back up and flood.
- Of further concern, is that if Option 1 is the preferred consultation choice, then it is highly likely that the eastern side half of Westport which will have absolutely no protection, will be likely to be targeted by insurance companies as not being covered for insurance purposes.
- Option 2 - flood walls will help but all the drains to the river would need shut off devices fitted to stop water coming back up the drains which happens where I live. This would then require pumps to be installed to deal with surface water.

- Although we do not live in the proposed rating district I take the view that a wider catchment of ratepayers, those that rely on Westport as a key service centre, should be assisting with the proposed special rating perhaps at a differential rate. After all if Westport suffers severe damage it is a much wider district that is affected than just the immediate property owners within the potential flood zone.
- Neither - Option 1; Gives no protection from Orowaiti River. Option 2; Why a Bund area around Carters Beach when a stopbank at end of branch of Martins creek which runs towards Carters Beach. Why a Stopbank around the Kawatiri River Trail. The flood protection makes no mention of the shingle build up in the Buller River. For the Orowaiti River a diversion channel at the turn in the river could take the flood flow away.
- The Buller is starting to meander and is chewing into the banks in places along with depositing shingle on the inside of the corners. The shingle build-up is raising the bed. This will continue until addressed and actioned.
- The overflow and Orowaiti have many issues. There is no defined channel and the floodwaters can race across cleared farmland. The railway lines and bridges are obstacles that back the water up and slow it down. Downstream of Stephen Rd is a mess, the Orowaiti is silted up and Cats Creek needs re-routing away from the housing areas. The Orowaiti Bridge is only half channel and then the river has to turn in that shallow estuary area. Once again the Option here is far from ideal. It is the river that needs treatment, the town can be protected as part of that effort.
- Neither Option addresses the transport routes that are problematic at the moment. The Buller Bridge, Orowaiti Bridge and airport, probably also the railway now, all need to be considered. The raising of the Buller to stop-bank and flood-wall level will cause problems in those areas as well as the roads even.
- We should be learning from the experience of the flood last month. With all the photos and survey readings taken there should be a clear picture of what happened and where the problem areas really are. I am concerned about the haste and would prefer a rethink taking the last flood into consideration. Now is the time to be making informed decisions, we are dealing with too much of the ratepayers' money to be rushing into things. I will be asked to pay many thousands of dollars here for something that is of very limited benefit to me, personally. The ratepayers outside of the ring fence will have strong views, especially if they are paying top dollar and are still seeing their farms or property being threatened. I think the answer lies with providing a safe and efficient overflow, a river diversion scheme and out the Orowaiti.
- Flood management is part of what we have been paying for with our WCRC rates during our time in Westport yet we have seen nothing of this. You do have the flood warning system which gave up on Te Kuha later in the flooding. The systems on the Orowaiti are blocked and not been cleared which I believe is your responsibility.
- No allowance for stormwater as much of the flooding in our area was caused by storm water filling up from the Orawati river. If Option 2 were to happen, we would have the same problem flooding yet no way for the water to disappear. Providing an excellent duck pond for duck shooters during the duck shooting season.
- Timing is everything. Yes we have suffered flood damage, which is important to deal with but there needs to be time to find out what are the main concern. In our area, storm water is the major issue (our flood damage and that of our neighbours, was caused purely from Storm water coming from the Orowaiti up our stormwater and entering our property through the stormwater grate. This then flooded at least 4 other properties. By our grate there would have been at least a metre of water with a very strong push. We took photographic evidence to show the council, now is not the time. They have acknowledged these issues (I have bought this issue and evidence to the council in the early stages explaining that now was not the time, but I will be continuing). We need to recoup and look at these things with a clear impartial mind which you are not doing. You are hitting while everyone is stressed and wont either vote or emotions will get in the way.
- **Option 1** - Please work closely with BDC to ensure that any new buildings/structures are built in suitable, non flood prone areas, ideally not on 1st class horticultural/ farming soils (subdivisions on our quality soils undermine our ability to produce food). And that all buildings are elevated suitably. The biggest fault with option 2, which I do not support, is that if there is breach anywhere in the stop bank/ wall then you will essentially be creating a large lake in which the residents of Westport and all homes/ facilities will be submerged. In my view the Council should work with central government and local councils to identify those areas, dwellings and people at risk of future flooding events, plan (liaising with BDC, Civil Defence etc) to ensure that new housing in at-risk areas is reduced to a minimum and developing an assisted relocation scheme where necessary.
- **Option 2** – support Option 2 as Option 1 does not provide protection for the majority of the town and environs. Dismayed that basically three engineers (Land River Sea, peer Review, Tonkin & Taylor) have been contracted to get the design and costs to a stage where there is a fair degree of contention and questions on credibility. Time to get full design and put it out to market to get the price so ratepayers can have some degree of certainty on costs. Undoubtedly complacency from a large percentage of ratepayers, especially those who escaped unscathed from the flooding. Reality was that the entire town was within cms of being completely inundated. If all of Westport is not protected and the inevitable happens then properties will be almost worthless. Cost of total protection will be a small price to pay for security and peace of mind and will be more than compensated by an increase in value to all homes and businesses. Managed retreat has been suggested by the Mayor and some Councillors. This is nonsense. The town would be underwater before even a small percentage of homes are sacrificed at huge cost to businesses and homeowners. Council can encourage people to build on higher ground but is just a small degree of mitigation. Hugely advantageous if Councils could pressure central govt to provide funding on an interest free basis.
- Cleaning and restoring these works as per annotated photo will be cheap, immediate and effective
- No mention is made about cleaning and maintenance of Cat Creek within Westport, an important tidal creek which should afford additional drainage. In the 17th July event it is so clogged up that its efficiency was detrimentally deficient. Photos attached.
- Enough has been said of dredging Westport Harbour Channels to no effect on selective hearing whatsoever.
- On the two options presented:
 - o The options were developed prior to the July 2021 flooding event, which has given us new information on flooding pathways. This now needs to be taken into consideration.

- the flood modelling used does not appear to have been undertaken with a level detail in the terrain model to accurately capture what happens in reality during the flooding (as we now know from July's event).
- The two options presented will result in SEVERE loss of amenity for our town. The rivers will be obscured from view and the town look like a prison camp.
- An earthquake, which I am told is overdue and to be expected, would likely damage any walls.
- If the floodwalls overflowed in any single location, flooding would potentially be severe and fast. People would have less time to escape.
- Any overflow of the walls could result in the town and Snodgrass Road areas becoming swimming pools.
- I don't believe the cost estimates of the two options are realistic and likely to grow significantly from that suggested.
- As a community that has been scarred by two major floods in the last few years, it seems everyone in town has an opinion. Some have merit, others not so much. There is a pervasive distrust of the WCRC, being aided by a lack of information and engagement with the Westport Community. This lack of information appears to be feeding a fear for the town's future and will likely result in reduction of investment and progress given the uncertainty.
- Going forward, I respectfully request that:
 - A full review is undertaken of all possible (practicable) options. Pros/Cons of each be considered and reasonings explored why they are viable or not. Interim and long-term solutions be considered.
 - New information gained from the July 2021 flood be included in any option consideration.
 - Internationally recognised experts be drawn upon in any option development process.
 - This information be presented to the Westport community in its entirety – both online and in a community event forum – before any further decision is made.
 - The community is given an opportunity to share their thoughts on the above and discuss these with WCRC engineers and Councillors. This would be separate to the long-term plan engagement.
 - This process is undertaken at the earliest possible time so that Westport can move forward without the fear of flooding
- Based on the events of 1 February and July 2021 Option 1 is not worthy of further consideration. Therefore fully support Option 2. Request Council to take into consideration:
 - The Joint Committee to oversee the Westport Rating District should be formed without further delay and the Terms of Reference be made immediately available to all ratepayers
 - it is the direct responsibility of the Regional Council to provide and maintain agreed levels of service and erosion protection for its communities and it has been consulting on the Westport options for over two decades. Westport Rating District requires immediate action.
 - Capital costs – acknowledge the forecasting assumptions will be further refined as the survey and design work is completed in the 2021/22 financial year.
 - Climate change – criticism around lack of climate change impacts in the proposed Option 2. WCRC policy on climate change is both prudent and fiscally responsible. Consistent with the Council's infrastructure strategy of coordinating independent expert advice, surveying and modelling data to allow Council to inform communities of the risks and risk mitigation options into the future.
 - Funding / affordability –
 - > inter-generational strategy (from the Financial Strategy) is not followed through with the proposal which is based on a 25-year term loan. Would recommend the funding timeframe be extended to a minimum period of 60 years.
 - > Revenue and Finance Policy is inconsistent with both the Financial and Infrastructure Strategies. The Capital Expenditure Statement needs to be amended to exclude assets funded through targeted rates and the Borrowing Policy needs to be reviewed so that it is consistent with the "intergenerational strategy" and the reference to a 30-year period deleted.
 - > Council should seek Central Govt funding noting that over \$9 million has been pumped into BDC since the July floods. Also consider entering long term support partnerships with businesses within the Westport Rating District that have been severely impacted by the adverse events.
 - > As Chairman of Buller Electricity, our Company is prepared to assist with funding of up to \$100,000 per annum to ensure the proposal becomes both acceptable and affordable to our ratepayers. Investing into the long-term security of the community than regularly facing clean-up expenses and the impacts of adverse events on our asset base.
- Alternative option – on review of the 2015 assessment the only alternative option worthy of consideration would be Option E or Option B with the addition of the Orowaiti Flood Relief Cut. A full cut as proposed may not be necessary, instead a 'depression' whereby removing 50% of the material would be as effective as a full cut in the time of river flooding and more effective in protecting from sea swells. Acknowledge that this may be more expensive but can reduce the visual impacts of floodwalls around the Orowaiti.
- Kiwirail – Structures on Stephens Road pose a real issue and Council needs to enter into discussions with Kiwirail when completing survey and design work. Culverts north of Excelsior Road intersection need to be removed and replaced with a pier type bridge structure to allow better flows and less blockage in this section of the Orowaiti.
- General – solutions are not simple but need to ensure the Orowaiti overflow and weir diversion is appropriately and continuously managed and the O'Conor Home stopbank is immediately repaired.
- Constraints to water flows – In any system there will be constraints and in order to improve the system, the first step is to identify the main or primary constraint. Once identified, it is resolved so it no longer impacts the system and the process completed repeated as often as necessary to resolve the issue. Westport flooding caused by lack of capacity. Suggest a first good action to stop arguing the long term options and start dredging the stone accumulation to alleviate some of the capacity issues in the river channel.
- Frame of reference – re local responsibility and affordability – WCRC frame of reference was based on affordability and the local rating base – perhaps this is a serious constraint too. Dredging in the past was undertaken by Holcim Cement. Now Holcim have ceased operations and funding of the dredging does not mean that Buller River stone-flow will stop or that dredging should cease

and the dredge put up for sale. Will Govt refuse to support a community which seeks to pro-actively adapt in a sensible manner? Believe Govt will help because support would be the right thing to do and cheaper than picking up the pieces later.

- I would also like to see WCRC work with central government and local councils to identify those areas, buildings, residential dwellings at risk of future flooding events and avoid any new housing in at-risk areas. I would like to see housing concentrated and planned to ensure best environmental practice is followed (and loss of 1st class horticultural/ farming soils avoided).
- As a resident affected by the recent Buller River floods my submission focuses on the suggested flood protection works for the Buller and Orowaiti rivers. I find the proposed flood protection schemes to be void of analysis as to the cause of past flooding
- I believe the past extensions to the Buller river flood walls to be a major contributing factor, particularly the constricting of the Buller river flow by the necking in of these walls. The harbour was designed by an acknowledged world expert on harbour design (Sir John Coode) and subsequent changes have been made by unknown, unrecognised government employees whose changes have:
 - o Degraded the Buller rivers discharge capacity by constricting the outfall.
 - o By failing to maintain the position of the Orowaiti River mouth the river has been allowed to increase its length thus decreasing its discharge. (Please note, the changing Orowaiti River mouth is not a natural occurrence but is entirely due to misdirected human intervention.
- I believe the maps provided by WCRC means we are in for more of the same as they have both cropped of the mouth of the Buller river which leads me to believe they are blind to the cause of the problem.
- Option 2 – Make an overflow to send Orowaiti straight out to sea in a flood. Carters Beach did not flood, Snodgrass bad flooding. Fix the Buller River mouth (keep it clear). Orowaiti river needs straight channel through North Beach to protect Snodgrass and release Cat Creek water from Westport

Report to: Westport Joint Committee	Meeting Date: 3 March 2022
Title of Item: Westport Rating District Works and Recommendations	
Report by: Randal Beal, WCRC Director of Operations	
Reviewed by: Heather Mabin, WCRC Chief Executive	
Public excluded? No	

Report Purpose

To provide the Joint Committee with a briefing on the progress of the Westport Flood Protection Scheme adopted by Council in September 2021, and ask the Committee to make recommendations to the West Coast Regional Council (WCRC) on emergency works, stage one of the flood protection scheme, and retrospective maintenance works.

Report Summary

WCRC consulted on two proposals for flood protection in Westport through its 2021 Long-term Plan, as outlined in the previous agenda report. Staff are now providing recommendations to the Joint Committee on progressing the project to advance the timeline as consulted on. This includes additional expenditure as per the staff recommendations that are endorsed by the Technical Advisory Group (TAG).

Recommendations

It is recommended that the Joint Committee resolve to:

1. Receive this report and the attachments, and receive the presentation from Matt Gardner of Land River Sea Consulting Limited; and
2. Recommend to WCRC that they consider the following:
 - 2.1 *5.3 Attachment 2 – Report on State of Emergency Works:* that with the exception of Snodgrass area, the state of emergency works are, where required, brought up to design height and standard;
 - 2.2 *5.4 Attachment 3 – Report on Floodwall Protection Scheme:* that the works identified for Stage One of the flood protection scheme are approved to commence; and
 - 2.3 *5.5 Attachment 4: Report on Retrospective Maintenance Works:* that additional budget is approved to complete the retrospective maintenance works, as outlined in that report.

Issues and Discussion

Background

The West Coast Regional Council adopted option two of its Long-term Plan Consultation Document in September 2021. Prior to the July 2021 weather event, Council had planned a 12 month period to allow for flood modelling review, survey and design work to be undertaken prior to construction beginning.

Current situation

Since adopting option two in September Council staff have compressed the timeline as much as is practical in order to progress recommendations for the Joint Committee.

Progress has been made with completing the peer review of the modelling and independent verification that the modelling is fit for purpose to inform recommendations and decisions made to both the Joint Committee and Council.

The Westport TAG have met and endorsed the recommendations in this report.

Since the July 2021 weather event there have been two subsequent weather events that have required CDEM recommending voluntary, followed by mandatory, evacuations of residential properties. The community are experiencing extremely high stress and anxiety with the situation and want the flood protection project advanced immediately.

The preparatory work to lodging a consent for the bank from the “Toki Bridge” to the Buller Bridge has commenced.

Considerations

Implications/Risks

There is still the same level of risk from flood events and further property damage until the flood protection scheme is completed.

If the project is to be advanced before the full design and recommendations are completed, then the project needs to be staged appropriately so as to not adversely affect other properties.

Financial implications

The original flood protection scheme recommended by the “Buller working group” in 2014, which included staff and Councillors of BDC and WCRC, deliberately excluded the effects of sea level rise and climate change from the flood protection scheme in order to keep the proposed scheme as affordable as possible for the current community and property owners but recognising that future upgrades of the scheme would be required as the forecast science began to take effect.

Staff recommend that the works identified in items 5.3 (emergency works - Attachment 2) and 5.4 (stage one flood protection works - Attachment 3) are constructed to the design heights that incorporate the effects of sea level rise and climate change. This will align with the direction of the investigations and likely recommendations from the Westport Steering Group in order to secure central government funding but will increase the cost of flood protection scheme.

Staff recommend that the retrospective maintenance works in item 5.5 are undertaken immediately to lower the risk of the Buller River breaching the banks further. This requires additional budget to be approved as this was not included in the 2021 LTP consultation budget.

Legal implications

Staff have to follow the notification process for any emergency works under the Resource Management Act and lodge a retrospective consent within 20 working days.

Attachments

- Attachment 1: Report on Technical Advisory Group Workshops
- Attachment 2: Report on State of Emergency Works
- Attachment 3: Report on Floodwall Protection Scheme
- Attachment 4: Report on Retrospective Maintenance Works

Agenda Item 5.1

Report on Technical Advisory Group Workshops

The first Technical Advisory Group (TAG) meeting was held on 30th November and 1st December 2021. The workshop was attended by both West Coast Regional Council (WCRC) and Buller District Council (BDC) staff with support from independent experts Chris Coll, Matt Gardner and Gary Williams. Staff from Department of Internal Affairs also attended.

The workshop brought together a range of experts in engineering, asset and infrastructure management, hydrological modelling and construction, to ground truth the 2014 concept stopbank location and alignment and look at potential refinements, risks, issues and opportunities. The group also reviewed the common themes received from the 2021-31 Long Term Plan consultation.

The range of recommendations from the workshop include further modelling to assess the impacts of potential alignment alterations, viability of staging project works, assessment of planning/consent implications and land ownership.

Prior to the initiation of further hydrological modelling, the Land River Sea Consulting Ltd hydrological model of the 1% AEP flood will be peer reviewed.

The model will also be updated and re-calibrated to include the 2021 LiDar data, 2021 cross-section data and the July 2021 Flood event data.

The 2nd TAG workshop was held on 22nd February 2022. At that workshop the TAG agreed to make the following recommendations to the Joint Committee meeting:

- Bring “state of emergency” works up to design specification where required, but excluding the “Snodgrass” gravel bank (Agenda item 5.3)
- 1st stage of flood protection works (Agenda item 5.4)
 - “Toki” Bridge to railway embankment stop bank upgrade
- Retrospective maintenance works (Agenda item 5.5)
 - Re-align the “organ’s island” rock wall to the escarpment
 - Erosion scour remedial work
- Engage Land River Sea Consulting to collate data and information relating to 2021 and 2022 flood events.

Stopbank Location Site Inspection Maps
Land River Sea Consulting Ltd Stopbank Design Maps
Westport Flood Protection Workshop Agenda

Tuesday 30th November – *Stopbank location site maps*



Overview of site visit locations

Site #1 8.45am – 10am. Roebuck to Kawatiri Farm. Walk the section of rail line from Queen Street to Menzies Street, then walk upstream past Domain to Kawatiri Farm. Vehicles will be parked on the corner of Balance and Stafford Streets.



Site #2. 10am-10.20am Nine Mile Road. Look at area for a potential alignment change.



Site #3. 10.20am-10.45am Excelsior Road



Site #4 10.45am- 11.45am. Eastons Road, Cats Creek, Kawatiri Place



Site #5 11.45am – 12.30pm Orowaiti - above bridge.



Site #6. 12.30pm -1pm. Snodgrass Road



Site #7 1pm – 1.30pm. Wharf – Adams Construction Ltd. This is to inspect the gravel build-up on the opposite side of the river. Low tide is 2pm.



Site #8. 1.30pm -2.15pm Wharf through to Derby Street. Walk along the existing bank through to Derby Street.



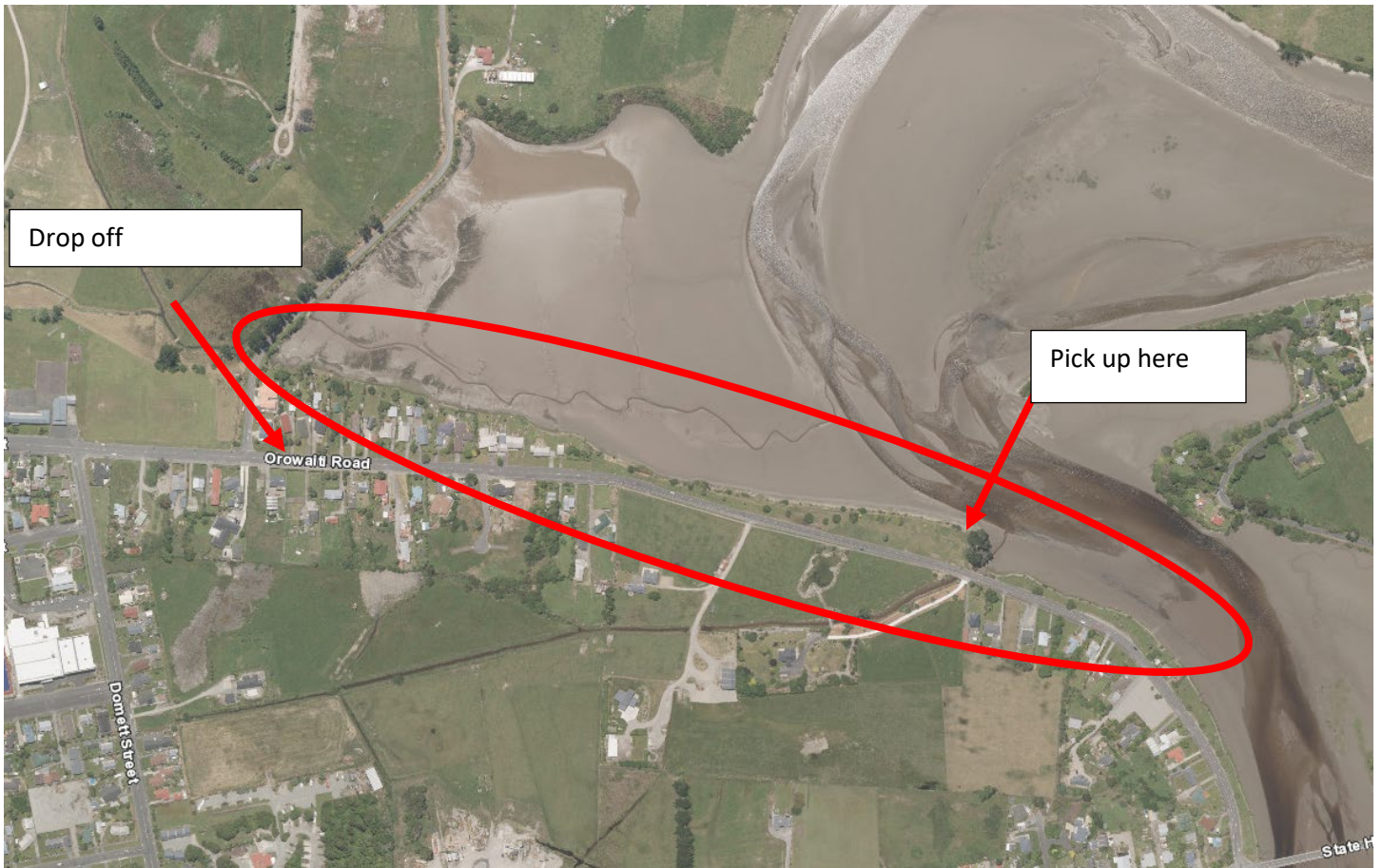
Site #9 2.15pm – 2.30pm Craddock Drive. Assess potential for locating stopbank along road alignment.



Site #10 – 2.30pm – 3.15pm location of potential Orowaiti Cut



Site #11. 3.15pm – 4.00pm Orowaiti below bridge. Walk from Causeway along Orowaiti Road



Site #12 Carters Beach



Agenda Item 5.3

Report on State of Emergency Flood Protection Works

February 2022

The Buller Area was subject to periods of heavy rainfall and rising rivers resulting in a state of emergency being declared on 10 February 2022.

Concerns were raised about areas within Westport that had been subjected to inundation from the Buller and Orowaiti Rivers in the July 2021 weather event.

Prior to the peak of the February 2022 weather events, low lying areas were identified and were authorized by Buller Emergency Operations Centre personnel for remedial flood repairs in anticipation of being under pressure from another flood event.

These areas were as follows:

O'Connor Home at Stopbank by Pylons

During the July 2021 flood, floodwaters flowed through the low lying area onto Nine Mile Road, and into Stafford Street. Trustees for the O'Connor Home requested that emergency works were completed at this low area to prevent this from reoccurring. An excavator using material from the surrounding paddocks completed reshaping over the low area to bring it up to the surrounding stopbank heights.

The materials used from the surrounding paddocks (being silt and sandy loam), although fit for purpose for the flood event, would not be suitable for a permanent stopbank and will require rework to ensure that the stopbank is constructed to the recommended design heights etc.



O'Connor Home at Stafford Street adjacent to Buller River

This area was also subject to flooding in the July 2021 flood event as floodwaters from the Buller River flowed up the open drain and into Menzies Street. Emergency works were completed by installing a temporary pipe complete with sluice valve, which allowed stormwater from the open drain to flow into the Buller River until floodwater from the Buller river started to backflow up the drain. At this point the valve was shut to prevent floodwaters backflowing up the drain. The low area on the access track was reshaped using materials from the surrounding area to provide a temporary stopbank.

The materials used from the surrounding area (being silt and sandy loam), although fit for purpose for the flood event, would not be suitable for a permanent stopbank. A permanent pipe complete with floodgate is required at this location to prevent backflow of Buller River floodwaters from backflowing up the drain.



Roebuck Street by the Buller Bridge

This area was also subject to flooding in the July 2021 flood event as floodwaters from the Buller River overtopped the high point on Roebuck Street at this location and flowed down Roebuck street to cause extensive flooding in the Roebuck / Menzies Street area. Emergency works were completed by installing a temporary pipe complete with sluice valve which allowed stormwater from the open drain to flow into the Buller River until floodwater from the Buller River started to backflow up the pipe. At this point the valve was shut to prevent floodwaters backflowing up the drain. However stormwater accumulating behind the stopbank required pumping to prevent further flooding of houses adjacent to the Menzies / Roebuck Street intersection. This stormwater was also subject to floodwater backflowing up the existing stormwater pipe from a sump on the Buller River side of the newly constructed stop bank which was constructed from crushed metal and compaction was completed using a vibrating roller.

The materials used being compacted crushed metal are suitable for permanent works at this location but will require further work such as suitable access ramps to provide access to the Domain area and the Buller river. The stopbank will require facing with river run material on the Buller river side to reduce erosion in this area. A permanent pipe complete with floodgate is required at this location to prevent backflow of Buller River floodwaters from backflowing up the drain with an additional backflow preventer installed upstream of the existing sump.



Orowaiti Road at Avery's

Floodwaters from the Orowaiti River overflowed the road at this culvert location during Cyclone Fehi and the July 2021 flood event. As such this area was also identified as a possible flood site and sandbags and crushed metal were installed at this location to prevent further flooding. These works were subject to minor flooding during this event but did not overtop Orowaiti Road. As such, floodwaters did not impact this location during this flood event.

These emergency temporary works are not suitable for the proposed permanent works and will require removal and replacement with proposed concrete wall around the existing culverts (these culverts have stopgates to prevent backflow from the Orowaiti River) and stopbank construction along the Orowaiti foreshore to prevent floodwaters from overtopping Orowaiti Road.



Stopbank on Old Railway Embankment at northern end of Derby St

Floodwaters from the July 2021 flood event overtopped the existing old Railway embankment / Kawatiri trail at this location and this area was identified as a possible flood location.

Sandbags were installed over the low area where previous overtopping had occurred. The February 2022 flood event did not overtop at this location and the sandbags were not required.

Permanent works raising the stopbank height through this area are proposed to prevent overtopping in this area from future events.



Stopbank at Snodgrass

The existing stopbank at Snodgrass has been subject to overtopping from the Orowaiti River during Cyclone Fehi and July 21 flood events and has caused extensive flooding in this area.

As such this area was also identified as a flood low point and remedial works were undertaken to raise this stopbank. Works were undertaken by trucks unloading river run gravel onto Snodgrass Road and a loader scooping up and tipping the material over the existing stopbank. The Orowaiti River floodwaters did not overtop this area but it was subject to floodwaters impacting at this location. Seepage through the uncompacted material did occur, however major flooding was prevented by additional sandbagging.

The river run material is suitable for this location but is not considered a permanent fix as the material has just been tipped over the existing stopbank without keying into the existing stopbank and no compaction has been completed. Permanent works are required to prevent further flooding in this area.



Agenda Item 5.4

Report on Westport Flood Protection Scheme – Recommended Stage 1 works

Toki Bridge Stopbank, and O’Conor Home Stopbank

The Toki Bridge Stopbank links the Toki Bridge to the Buller Bridge and is a combination of earthen stopbanks and concrete floodwalls. The earthen embankments have a 3m wide crest width and 2:1 batter slope. The O’Conor Home stopbank is solely an earthen bank and has both 3m and 6m wide crest widths with a 2:1 batter slope on either side. Both sections will also include additional appurtenances (such as culverts) where required.

It is recommended that the stopbanks be built to a 1% AEP crest height, with 0.6m freeboard and to include additional allowance for climate change and sea level rise.

The final design heights are yet to be confirmed but allowing for an increase in crest height to account for climate change and sea level rise is likely to increase the volume of material required for the construction of the earthen banks by approximately 4000m³ (to 11,000m³) for the Toki Bridge Stopbank and by 10,000m³ (to 35,000m³) for the O’Conor Home Stopbank.

Note these volumes are only approximate until design heights are confirmed and detailed design drawings are completed.

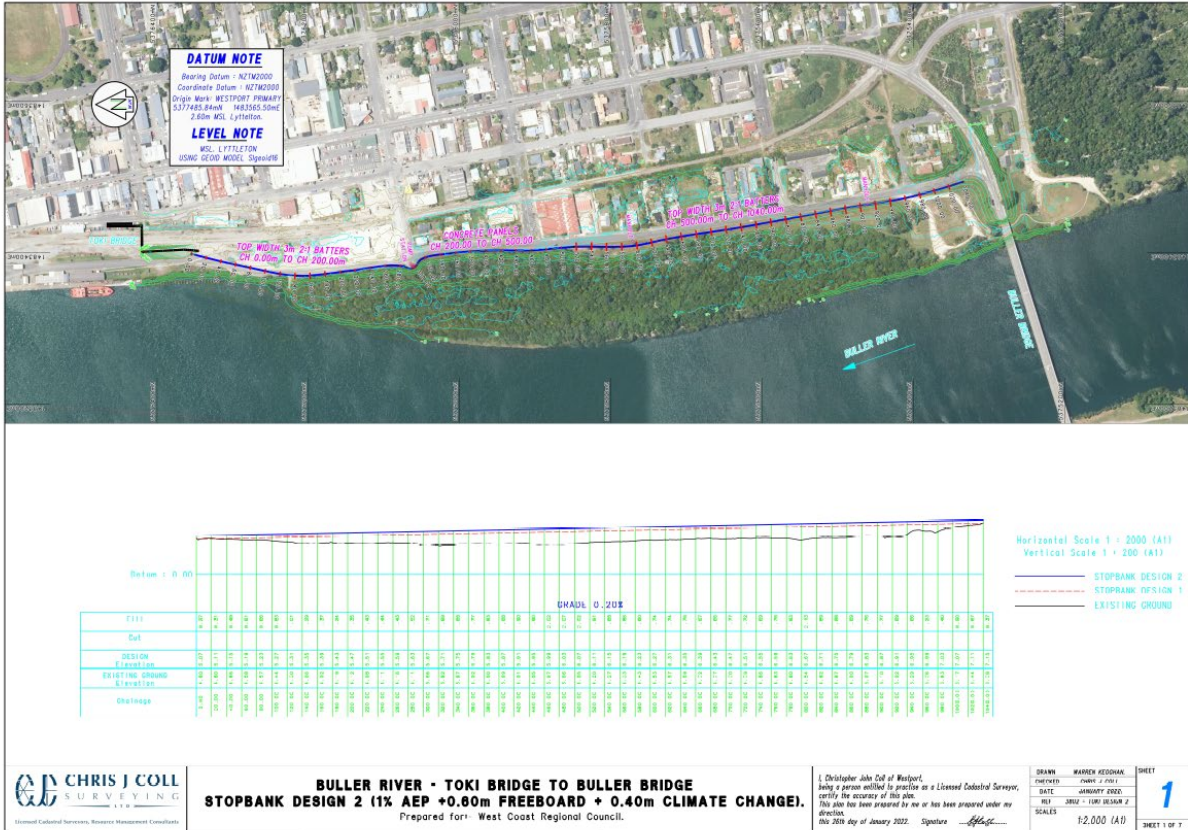


Figure 1: Toki Bridge Stopbank plan view and longitudinal survey

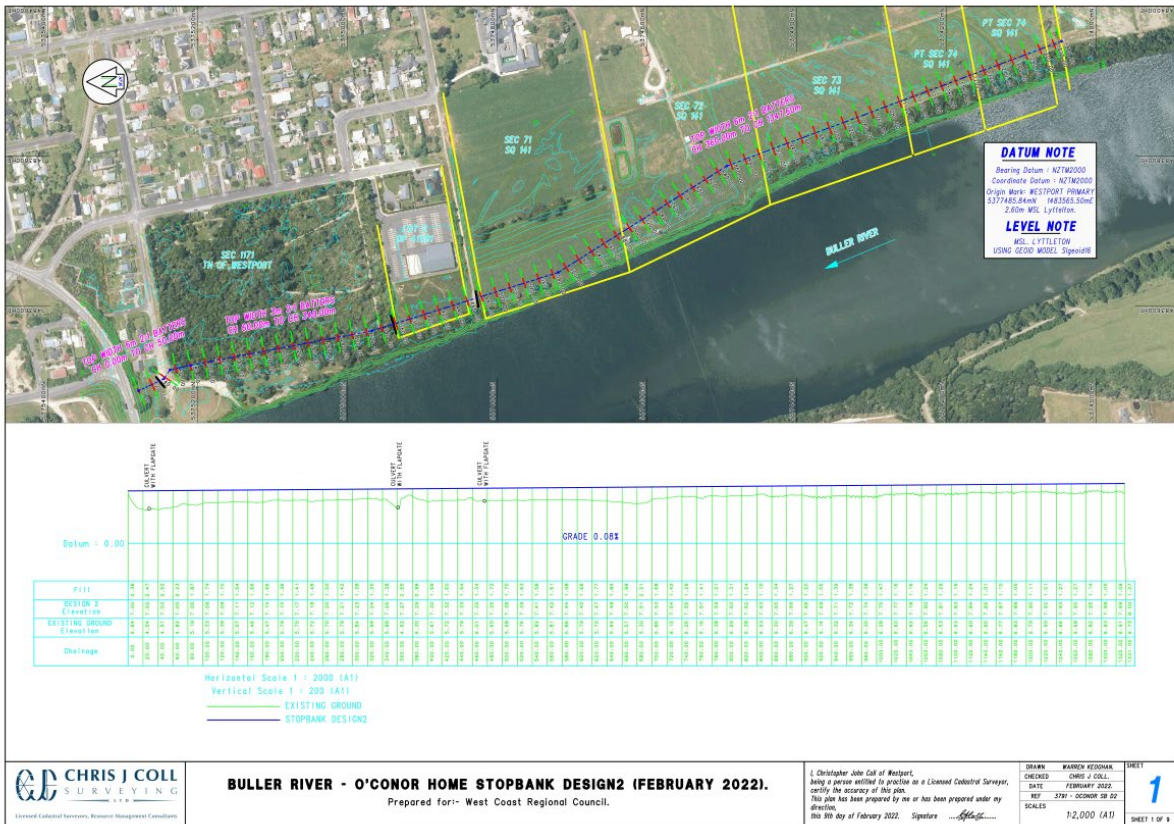


Figure 2: O'Conor Home Stopbank plan view and longitudinal survey



Figure 3: Alternate alignment being investigated by TAG

Agenda Item 5.5

Report on Retrospective Maintenance Works

Erosion Scour Repair

During the July 2021 flood event an erosion scour formed on the true right bank of the Buller River upstream of the O'Conor Home (a rest home and residential care facility).

LiDAR imagery shows that the 260 metre long scour is located on a relict river channel (see Figure 3). The existence of this historic flood flow path makes the area particularly vulnerable during flood events. The susceptibility of this area to erosion and inundation in the past is evident by the historic construction of low earth stopbanks, as well as a patchwork of riverbank rock protection (see Figure 4). The scour area may previously have had some river protection from rock spurs but little to no evidence now remains.

A relict channel of a high velocity river like the Buller River, in close proximity to O'Conor Home containing vulnerable and at-risk residents, means that protection of this area is crucial, in particular as during significant flood events access is cut off to emergency management personnel to aid evacuations.

To provide bank protection to this area will require armouring of the scour to prevent further erosion of the riverbank. To armour the bank with continuous rock riprap along the 260 metre length to the full height would require approximately 13,000 tonnes of armour rock, at an estimated cost of \$891,600.

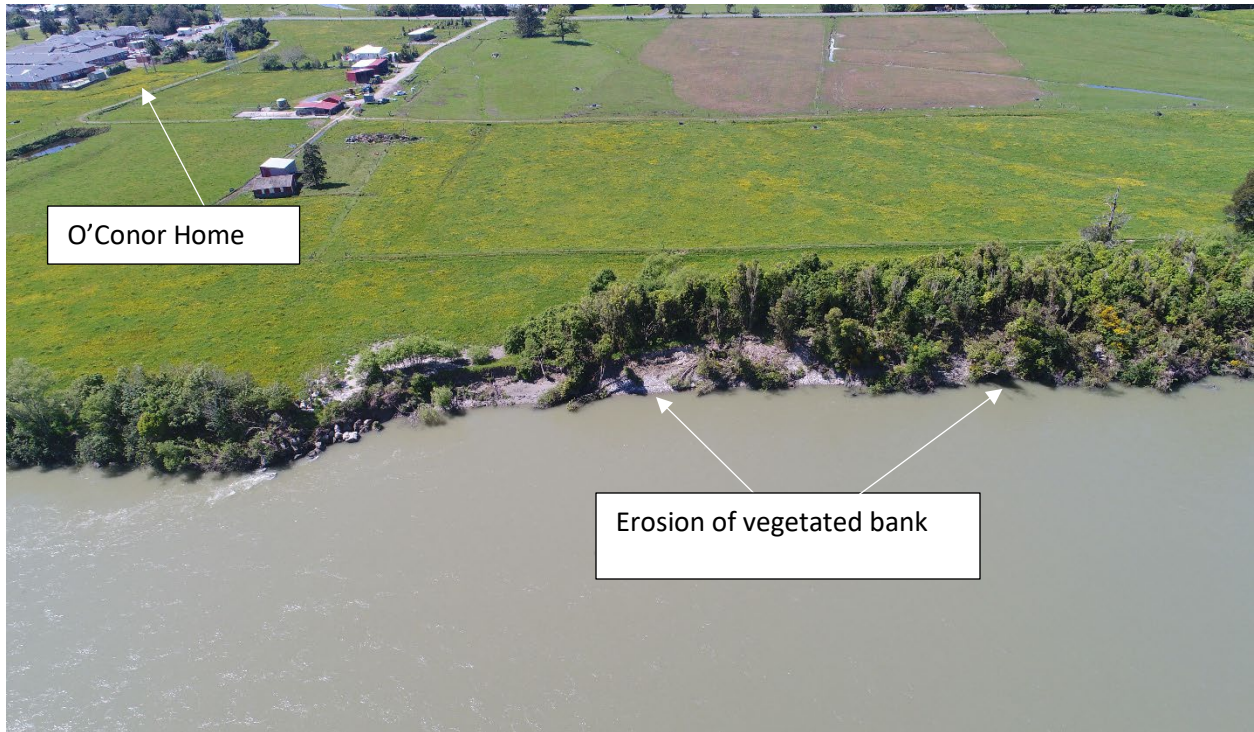


Figure 1: Aerial view, showing proximity of O'Conor Home, and erosion of willows and native vegetation from the riverbank.

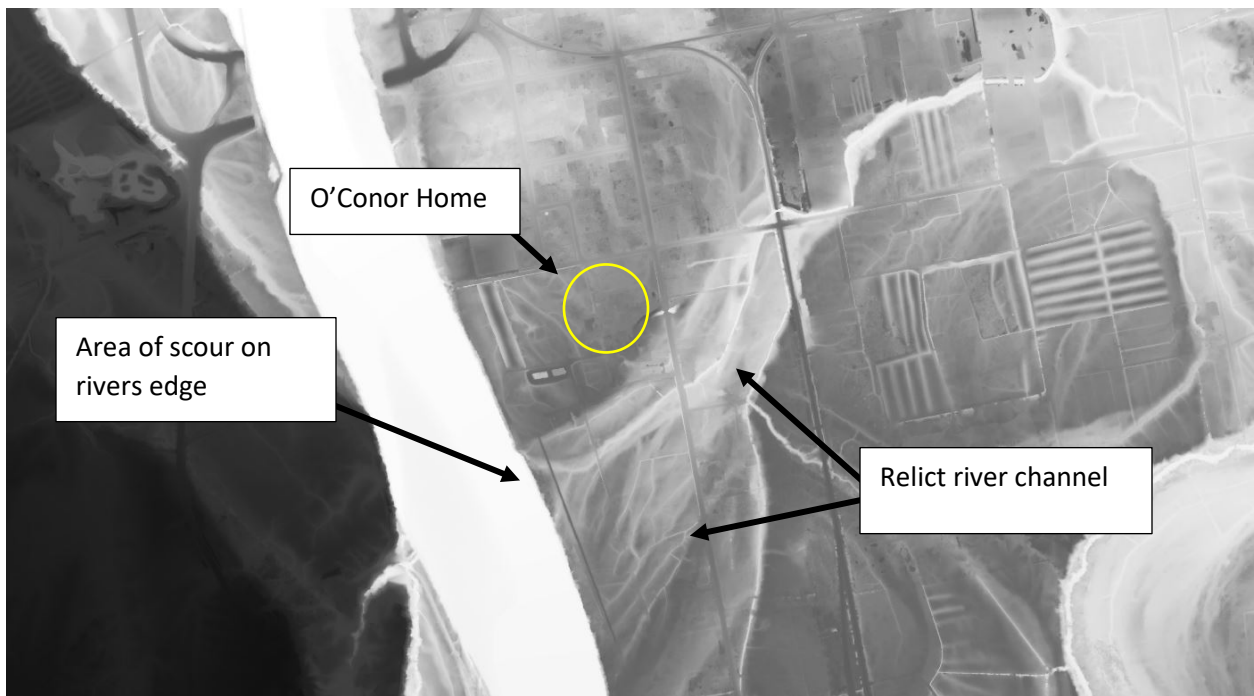


Figure 2: 2021 LiDAR image showing relict river channel and location of O'Conor Home

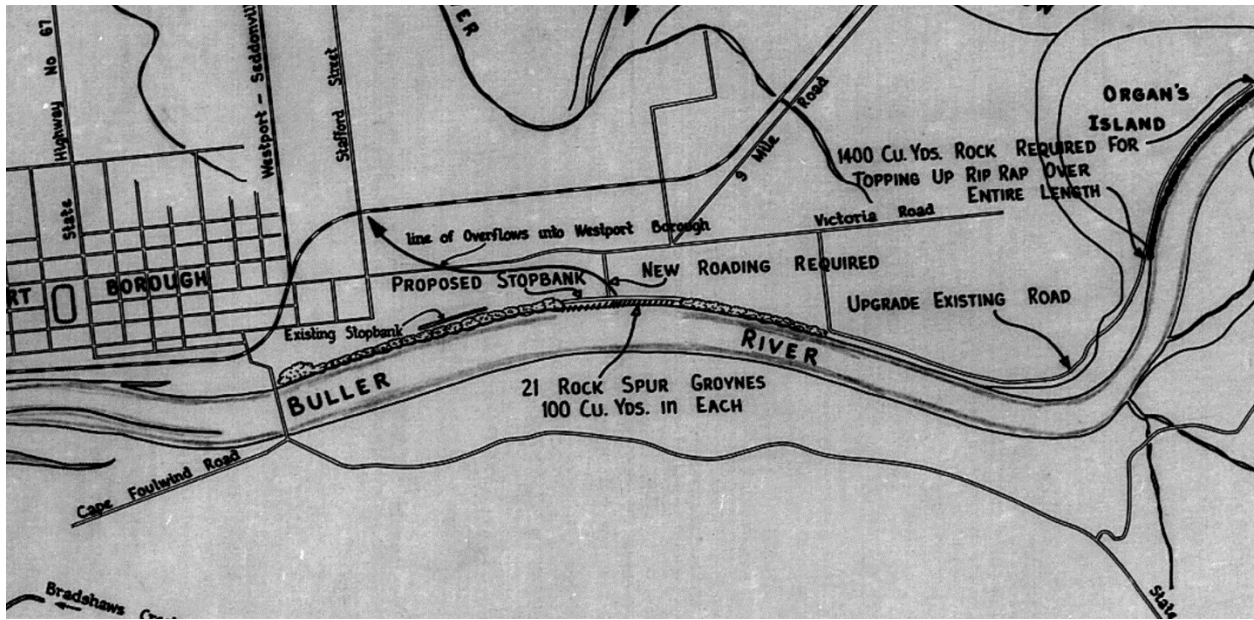
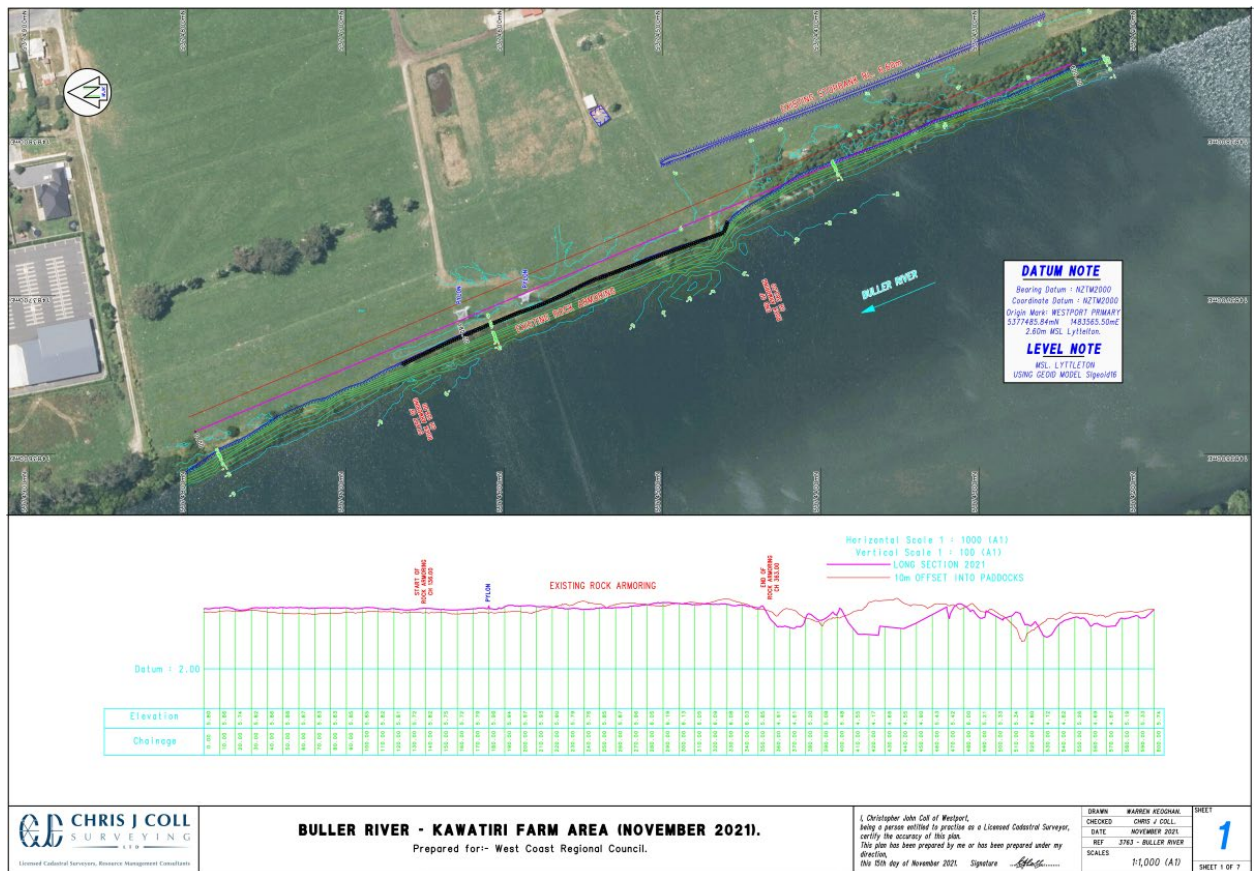


Figure 3: Example of Westland Catchment Board river protection works constructed in 1970 to protect the township of Westport.



Organ's Island Rockwall realignment

The TAG reviewed drone and aerial footage taken during an onsite inspection undertaken prior to the TAG meeting and agreed to recommend that the existing Organ's Island Rockwall is moved back to a new alignment.

A section of the historic rock training wall has deteriorated and allowed flood flows to erode over 50m of riverbank and potentially divert more flow into the Orowaiti Overflow.

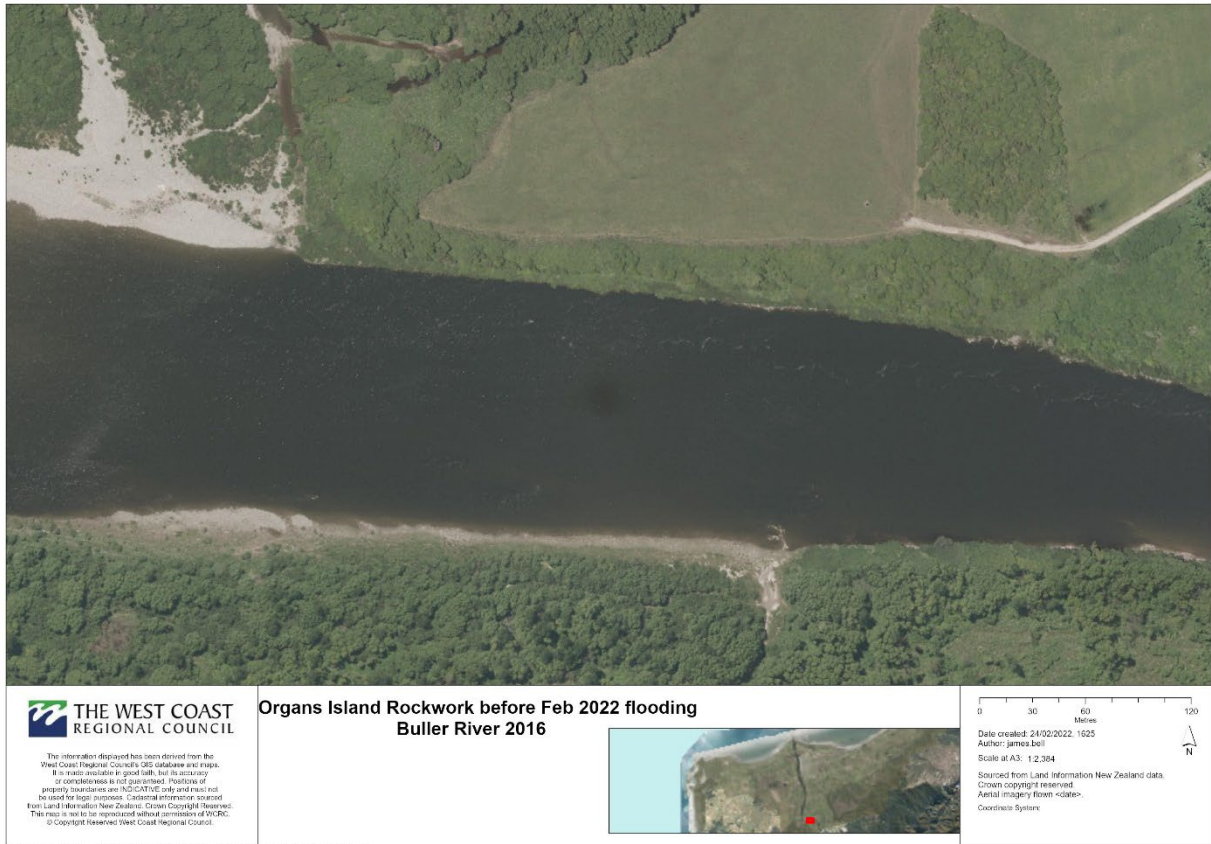


Figure 5: 2016 aerial view of riverbank at Organs Island.

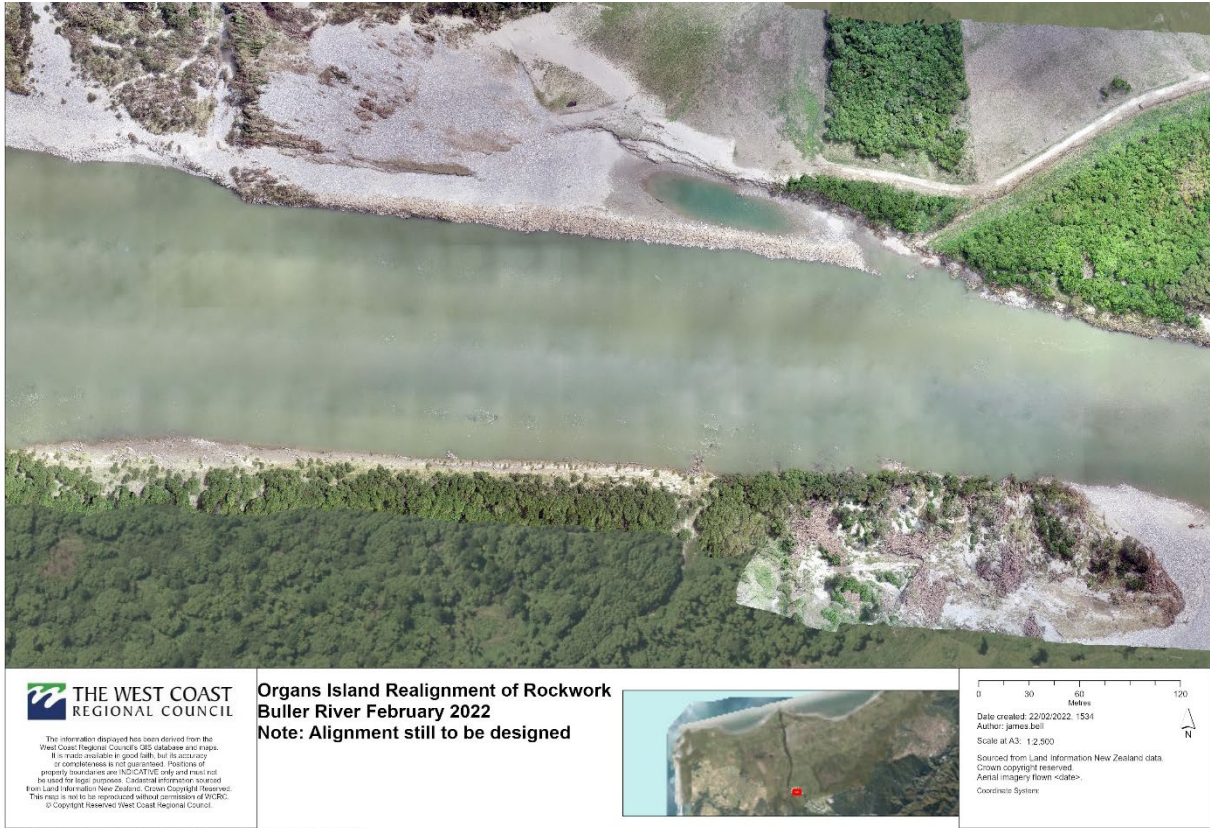


Figure 6: February 2022 aerial view showing deterioration of rock training wall and erosion of riverbank.



Figure 7: Looking downstream showing erosion of bank and scour behind rock training wall

Report to: Westport Rating District Joint Committee	Meeting date: 3 March 2022
Title of Item: Medium term actions: Initial matters for consideration	
Report by: Randal Beal, WCRC Director of Operations & John Hutchings, Henley Hutchings	
Reviewed by: Heather Mabin, WCRC Chief Executive	
Public Excluded: No	

Report Purpose

To provide the Joint Committee with additional contextual information and an outline of the proposed medium-term 'direction of travel' actions and programme elements, to secure Central Government co-investment into the Westport Food Protection Scheme.

Report Summary

Correspondence has been received from the Minister of Local Government, Hon Nanaia Mahuta, describing her expectations about the matters to be satisfied to enable her to recommend Cabinet support for co-investing in the Westport Flood Protection Scheme. These expectations include a requirement that a business case for the proposed Scheme be developed by the Buller Flood Recovery Steering Group. Other matters raised by the Minister include the expectation the Scheme will be viewed as a part of a comprehensive package of tools for building the long-term resilience of the Westport community against flood risks.

Recommendations

It is recommended that the Joint Committee resolve to:

1. Receive this report; and
2. Agree in principle to the criteria to be applied to the Flood Protection Scheme to be recommended to the West Coast Regional Council.

Issues and considerations

Background

The Minister wrote to Chair Allen Birchfield and Mayor Jamie Clemie on 17 February 2022. At the heart of the correspondence is the Minister's intent to view Westport as something of a test case for central government returning to the table as a co-investor in flood protection measures throughout New Zealand.

The Ministerial correspondence foreshadows the need for the following matters (paraphrased below) to be addressed as part of a request for central government co-investment:

- Integrated initiatives should be packaged and agreed to, through the Buller Flood Recovery Steering Group.
- Value for money should be displayed.
- Robust costing practices should be applied.
- Plan of action should be clear.
- Reasons for why central government support is essential should be displayed.
- Reasons why a 'bare-bones' local government response won't be enough on its own should be apparent.

- Reasons why Westport is special, compared to other flood prone communities in New Zealand, should be described.
- Proposed flood protection initiatives should show how the solution deals with climate change.
- Proposed flood protection initiatives should show how the solution deals with emerging resource management policies.
- Proposed flood protection initiatives should show how the preferred solution is the best to be applied from the options available.

Current situation

To address the matters raised in Minister Mahuta’s letter, several activities have been actioned.

Buller Recovery Steering Group

The terms of reference for the Buller Recovery Steering Group were amended in February to broaden its focus to include the purpose of submitting an application to Minister Mahuta in June 2022 for central government funding. This change in purpose moves from ‘recovery’ to now include consideration of flood risk ‘reduction’ initiatives.

Two workshops and related actions are proposed to be undertaken over the next four months to enable it to develop an integrated package of Westport flood risk reduction measures (appendix one). This integrated package of measures will be recommended for adoption by the Buller District and West Coast Regional Councils. Regional Council’s Westport Flood Protection Scheme will be a critical component of this package.

Broader package of community flood resilience and flood risk management proposals

A ‘multi-tool’ or comprehensive approach to building community flood resilience should be applied (appendix two). Options for consideration by the Steering Group may include flood protection, storm water nexus, land use planning and encouraging development in areas less prone to hazards.

Business case for Westport Flood Protection Scheme

A robust business case will need to be prepared to support central government decisions about co-investment in the proposed Westport Flood Protection Scheme. John Hutchings from HenleyHutchings has been engaged, with funding support from DIA, to assist the Regional Council to develop this business case.

The sought-after outcome is construction of a Westport Flood Protection Scheme, alongside other interventions, to provide a high level of protection / resilience to the Westport community from future flooding. A critical input to achieving this goal is central government co-investment.

The sought-after decision is Cabinet approval in July 2022 for funding to be made available as soon as possible to contribute to flood protection works. The local share of this co-investment is yet to be determined.

The focus of the Regional Council business case will be on physical flood protection infrastructure and related works i.e. components with an engineered / construction character. These may include:

- Flood protection walls.
- Structures and systems to manage stormwater, streams and drains entering the Buller River.

- Riverbed, river mouth and storm water flow management methods, including that occurring in the Orowaiti catchment.
- Management of the effect on river flows of buttresses, bridges, and other structures such as those used by Kiwi Rail and Waka Kotahi to protect roads and rail.

Alongside the Minister’s requirements, the business case will also address the:

- Principles and criteria for central government co-investment in measures to increase community resilience against flooding – as specified in a July 2020 Cabinet Paper.
- Better Business Case requirements, as defined by Treasury for application to all significant investment proposals.
- Many additional positive reasons for central government co-investment – as raised in the January 2022 joint regional council business case seeking nation-wide central government co-investment in flood protection schemes. These include, for example, the protection that will be provided by the proposed Westport Scheme to close to \$1 Billion of Crown assets located in the Westport area.

Options assessment

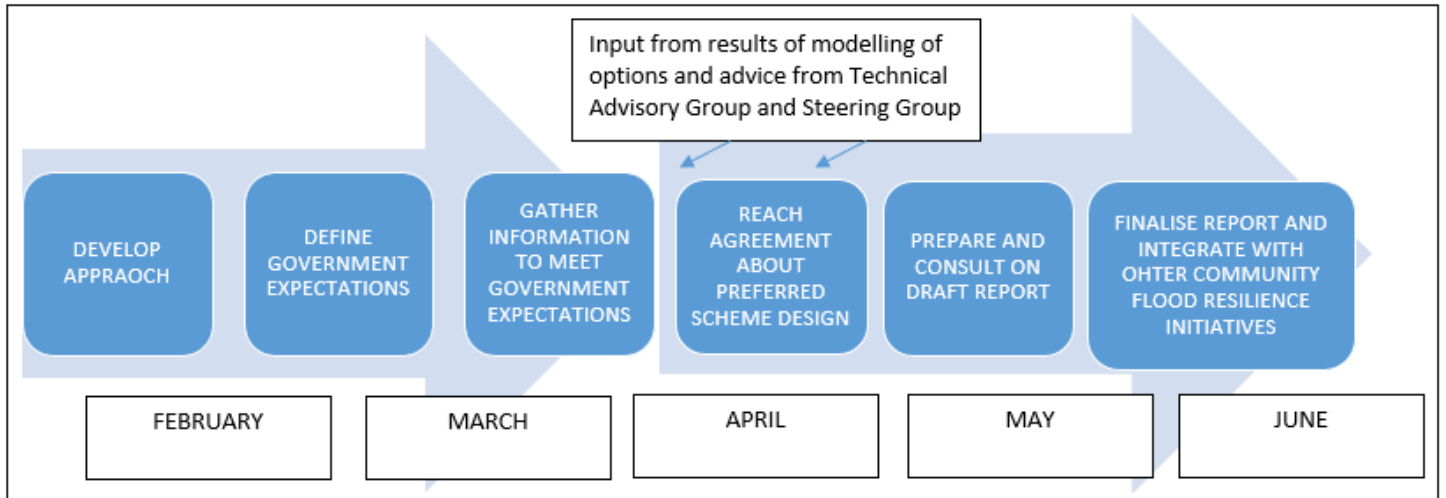
The presentation to be given to the Committee by Matt Gardner of Land, River, Sea Consulting Ltd will introduce the Scheme options currently being considered by the Regional Council’s Technical Advisory Group (TAG). These options are likely to be reduced by the TAG to a shorter list for detailed evaluation, using agreed and appropriately weighted decision-making criteria.

It is recommended that the Joint Committee agree in principle that the following criteria be applied (noting that the TAG and the Steering Group may offer further thoughts about evaluation criteria):

- Manage climate change-induced flood level flows and sea level changes / surges (suggested ARI - 150 years).
- Be best value for money (cost / benefit).
- Meet the cost share requirements foreshadowed in correspondence from the Minister of Local Government (17 Feb 2022).
- Land tenure - achieve best gains with least impact on private properties / affected properties.
- Include early / no regrets ‘phase one’ wins.
- Have least environmental impacts and best contribute to te mana o te wai / iwi concerns.
- Have least design complexity.
- Able to be constructed within a relatively speedy window.
- Best able to satisfy resource consent concerns (the ease or difficulty of achieving consent).
- Have long term integrity and have manageable maintenance requirements etc.
- Minimise the number of structures / stormwater / stream interface structures / ancillary costs.
- Other criteria.

Plan of action

The broad phases of proposed Westport Flood Protection Scheme work, to be undertaken between now and June 2022, are summarised as follows.



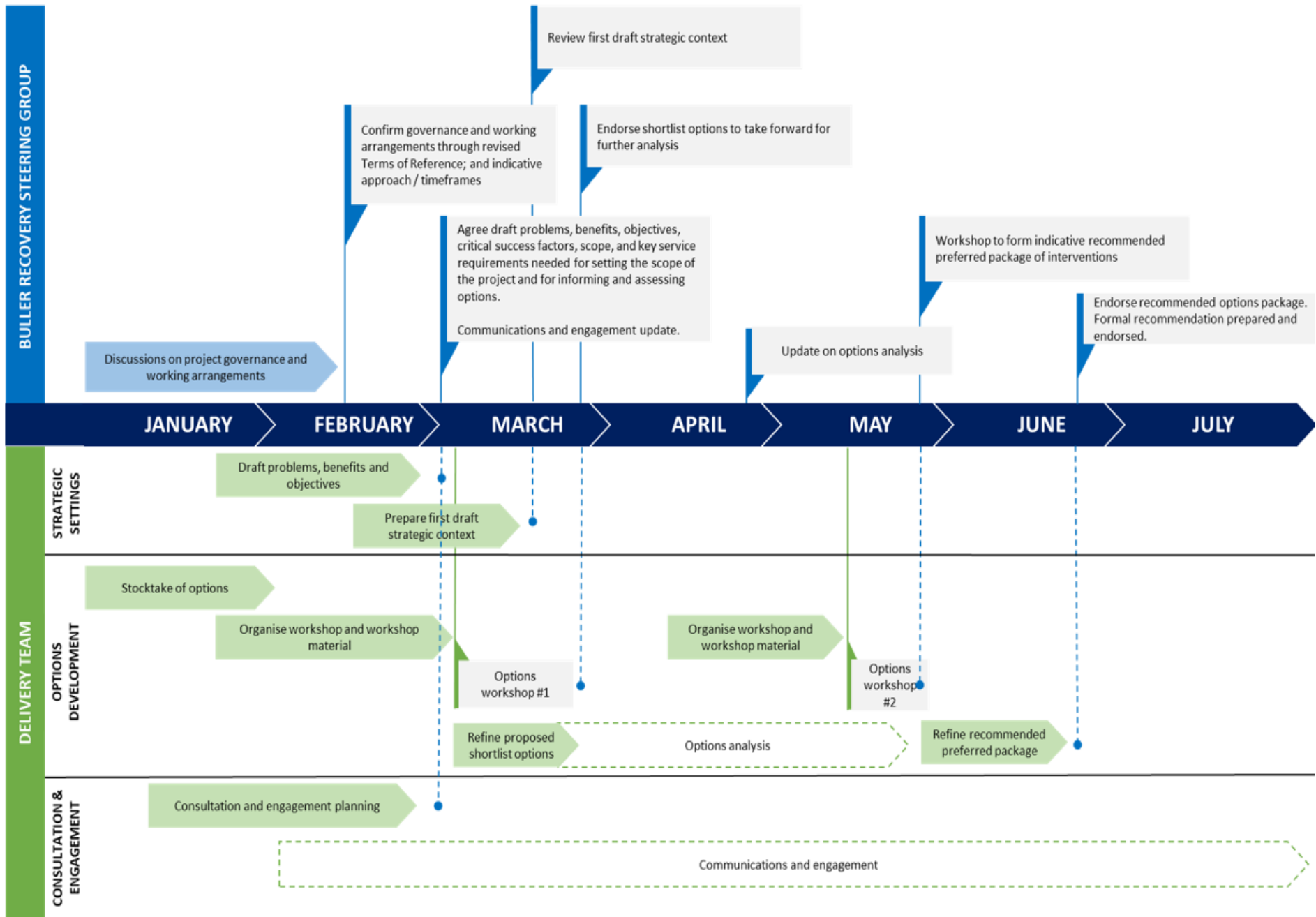
Appendix three provides more details about the phases of work to be carried out by the Regional Council between now and June 2022. Early ‘phase one’ recovery and or potential ‘early win / no regret’ works may also be commissioned before June 2022.

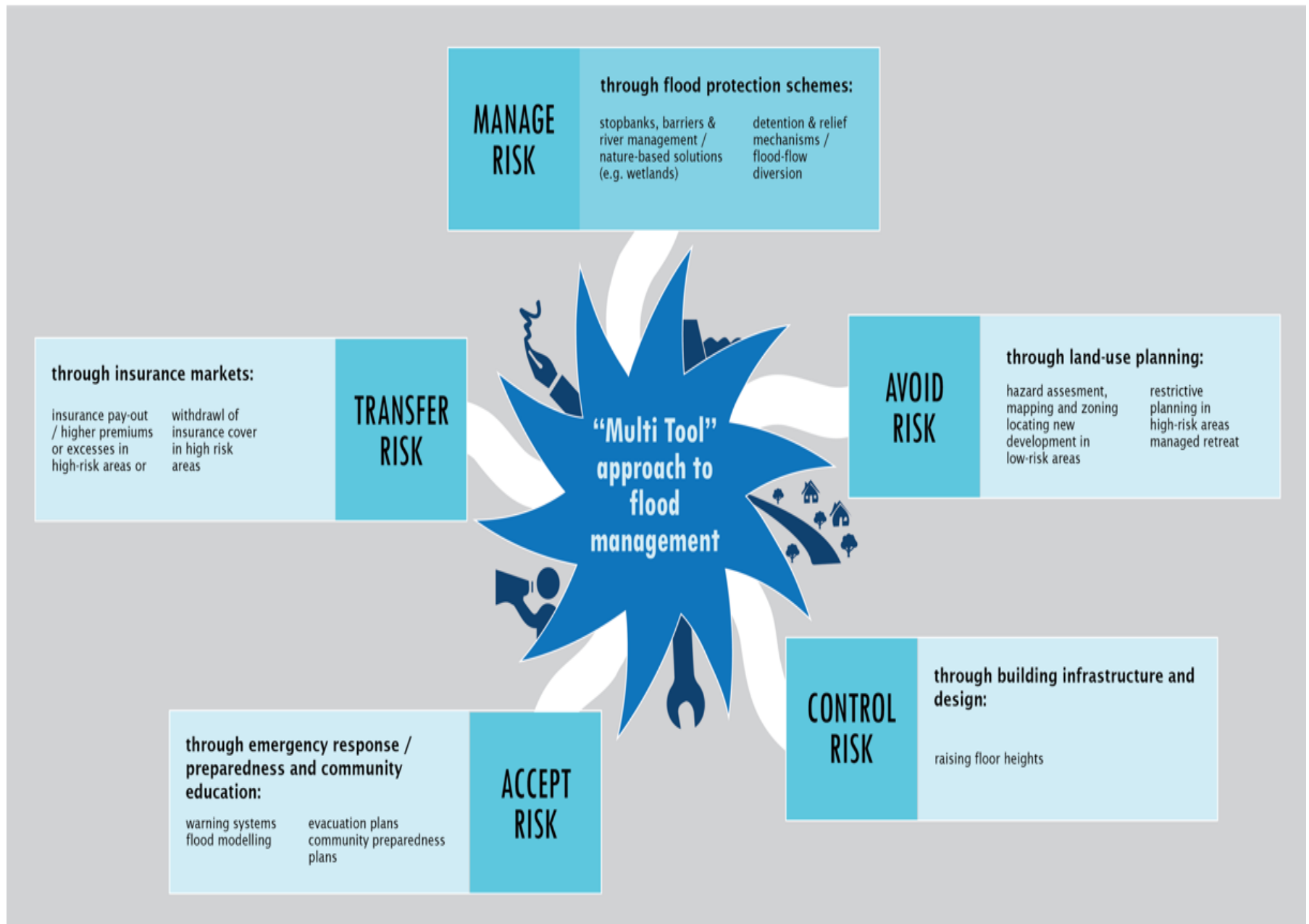
Once a preferred Scheme design is agreed, then a second phase of work will be commissioned. Preliminary work on these matters will be commenced in phase one). Phase two is likely to include:

- Detailed scheme engineering design and geo-technical assessment.
- Decisions about the stages of construction.
- Landowner and broader community engagement and communication.
- Decisions about raising loans and distributing the costs of the funding of the local share of co-investment.
- Environmental impact assessment and resource consent processing.
- Ownership questions / lease arrangements related to stop banks etc, and their underlying land.
- Material procurement.
- Construction company procurement and project management.

Once the Regional Council has received the outcome on the Steering Group’s application for co-investment from Minister Mahuta, the final likely impact on the Westport Rating District will be communicated.

Appendix one: Phases of work proposed for the Buller Flood Recovery Steering Group





Appendix three: Proposed phases of work toward construction of Westport Flood Protection Scheme

